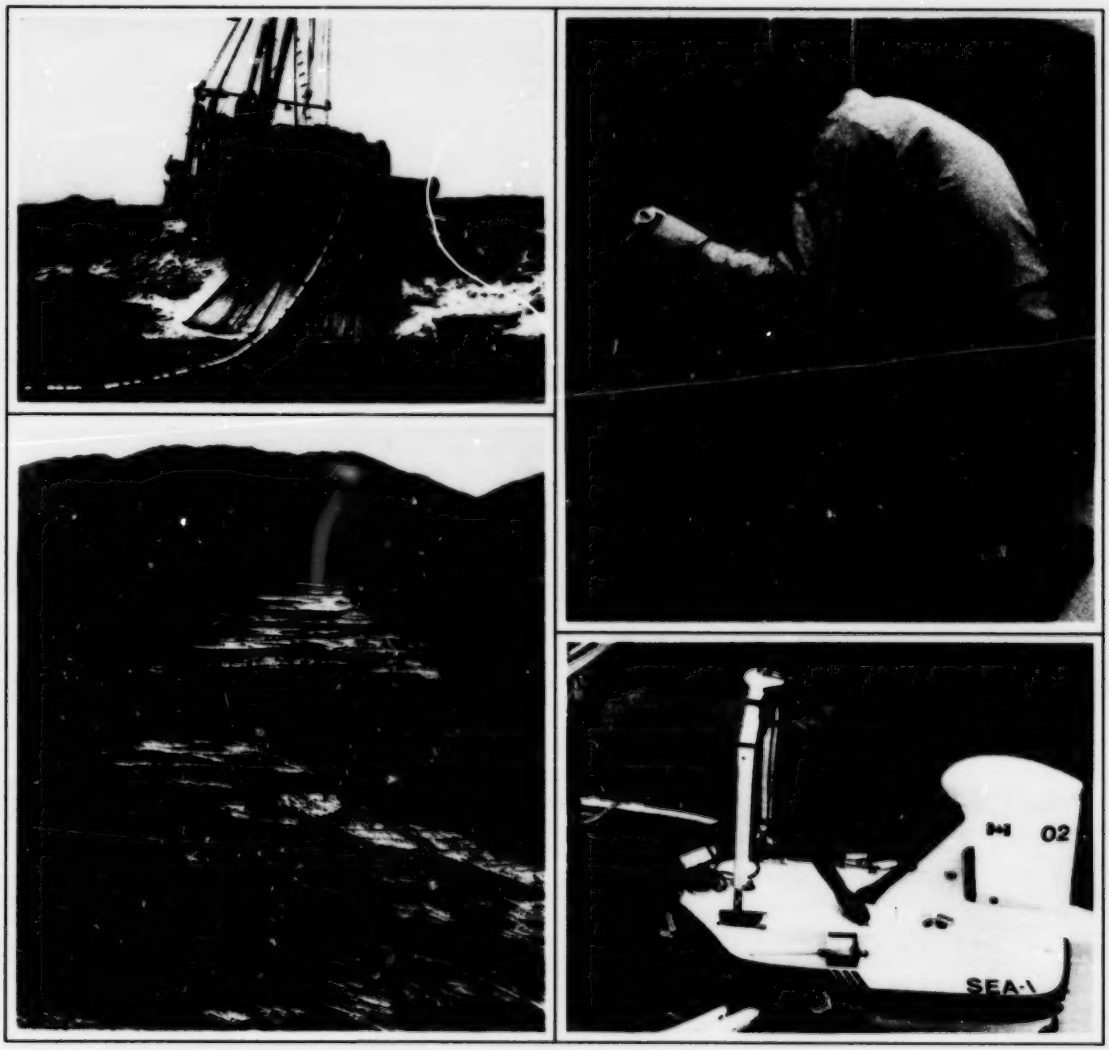
BRITISH COLUMBIA INDUSTRY REVIEW 1986



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Ministry of Economic Development

The Honourable Grace McCarthy, Minister

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The British Columbia Economy in Review

Structure of the British Columbia Economy

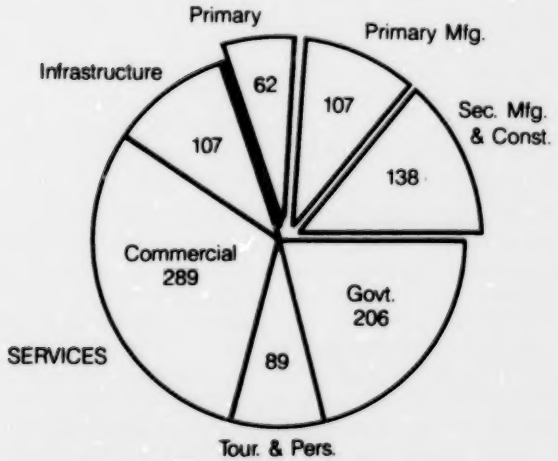
Resource industries have traditionally been a dominant feature of the British Columbia economy. Even today raw and processed resources still account for 85 percent of the value of Provincial exports. Nevertheless, a new, diversified economy has been slowly developing out of the wages, taxes and profits earned in resource industries.

The accompanying figures illustrate an increase in the numbers employed in primary extraction, virtually unchanged numbers employed in primary manufacturing and secondary manufacturing, and large increases in the numbers employed in service industries. As prices of resources have declined, firms have stayed internationally competitive by steadily switching to machinery and equipment which has made British Columbia workers some of the most productive in the world. The result has been no increase in numbers directly employed in manufacturing but a steady increase in employment in service industries catering to the primary and secondary manufacturers.

The same pattern is found in many economies selling into international markets:

- ☐ workers are stepping back from production,
- ☐ machines are replacing the heavy, monotonous jobs, and those requiring repetitious patterns,
- ☐ workers are being trained in how to install, program, service and maintain new machines.

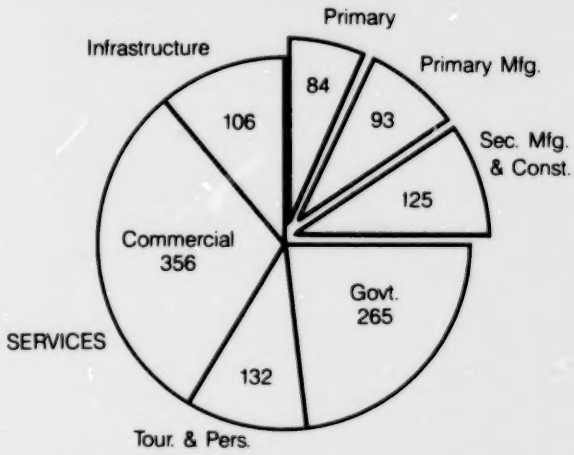
British Columbia Employment
All Sectors - 1976
(thousands of persons)
Total Employment: 1,021,000



Source: Statistics Canada, Labour Force Survey.

The new service industries evolving from primary resource production are, themselves, a new source of export earnings. Tourism, education, business and commercial service exports, alone and in combination with goods exports, are growing steadily as a proportion of total exports.

British Columbia Employment
All Sectors - 1984
(thousands of persons)
Total Employment: 1,202,000



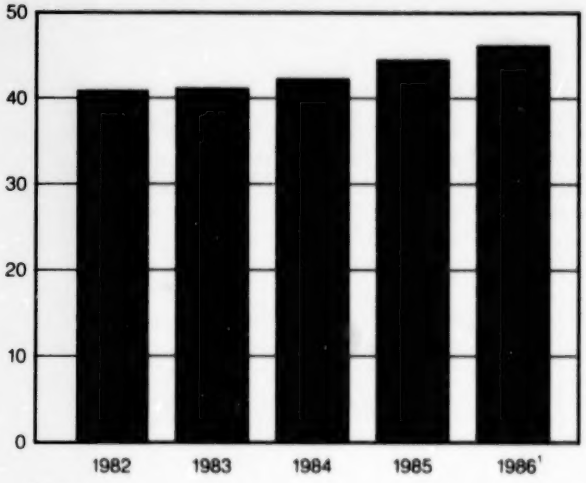
Source: Statistics Canada, Labour Force Survey.

Review of 1986

An exciting year for the Provincial economy with Expo 86 and the New Economy initiative, provided the final proof that British Columbia has entered a new period of sustained growth. Despite the protracted forest industry dispute, the tariffs against shakes and shingles, and the protectionist threat to softwood lumber, Provincial Gross Domestic Product rose an estimated 3.5 percent in real terms in 1986. This was not significantly different from the 1985 rate of 3.5 percent but was slightly higher than Canada's 3.2 percent.

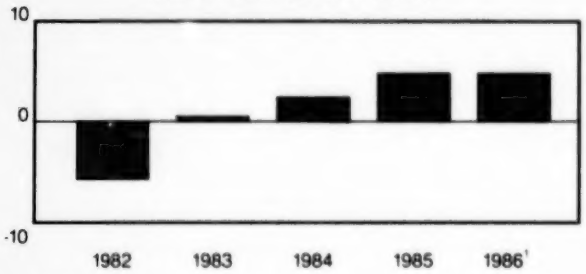
The growing economic recovery in 1986 was broad-based and embraced almost all sectors. Retail sales rose by 8 percent, manufacturing shipments by 7.8 percent, and housing starts by 15 percent. Metal production and farm cash receipts grew only slowly while lumber production increased slightly. Volatility in energy markets and the continuing crisis in world steel markets led to declines of 14.1 percent in electricity production and 4.6 percent in coal shipments. Even with the flurry of Expo 86 activity, new capital investment was down a worrisome 8.2 percent.

British Columbia Gross Domestic Product
(billions of 1981 dollars)



[1]Estimate.
Source: British Columbia Economic Accounts.

British Columbia Gross Domestic Product
Year-to-Year Percent Changes
in Constant Dollar Terms



[1]Estimate.
Source: British Columbia Economic Accounts.

The lack of capital investment may be symptomatic of a major restructuring which has been taking place in the B.C. economy. Service industries now account for 75 percent of Provincial employment, and 62 percent of the new service jobs created in the last eight years have been in firms with less than five full time employees. The rapid increase in capital formation per employee in the service industries may help to explain part of the decline in the overall measure of new capital formation—capital investment is taking place but in thousands of small firms which may not be included in capital investment statistics.

General economic conditions continued to improve with inflation (as measured by the Vancouver CPI) increasing slightly from 3.2 percent in 1985 to 3.3 percent in 1986. In the labour markets, continued improvements were visible, with employment growing by 3.7 percent and the labour force by 1.8 percent over 1985 levels, resulting in a decline of the Provincial unemployment rate from 14.2 percent to 12.6 percent. With inflation at lower levels and the continuing decline in U.S. and Canadian interest rates, British Columbia appears to have entered a period of moderate, but sustained long term growth.

Of some concern was continuation of high real interest rates which impact negatively on new capital investment, and the steady rise in the Canadian dollar vis a vis the U.S. dollar. Over half of Provincial exports still go to the U.S., and a higher Canadian dollar and two protectionist tariffs in place will make it more difficult for forest product industries to maintain the recent recovery in profitability.

Improvement in the prices of gold, zinc and lead helped to offset the continued weakness in copper prices, with the value of metals production increasing 12.4 percent in 1986. Cost-cutting improvements in previous years plus the continued international weakness of the Canadian dollar improved Provincial competitiveness and led to this significant recovery for the mining industry. Employment fell marginally, a reflection of the great strides in improving productivity. Optimism for a continuation of current growth is tempered by widespread concern that excess global capacity and weakening world demand may continue.

Production of coal for export appears to have reached a near-term plateau with very little change in the value of shipments for 1984, 1985 and 1986, but still double the value of shipments in the early part of the decade. Problems in international steel markets are expected to lead to some deterioration in the next year or so.

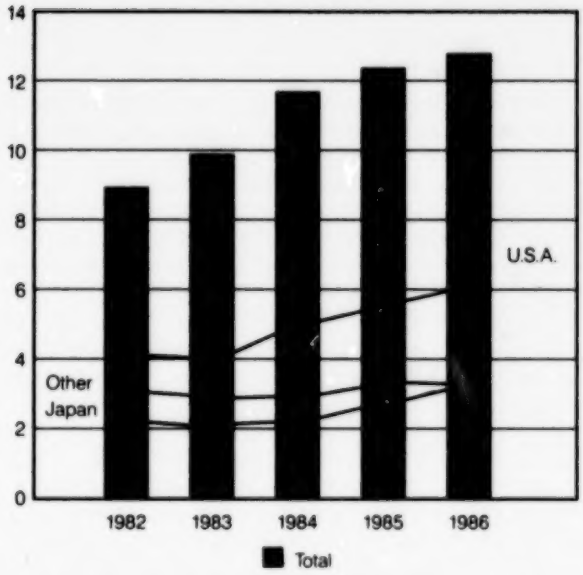
Production of natural gas increased but lower prices drove the value of shipments back to 1983 levels. Production of crude oil rose substantially, enough to offset the decline in prices, to end up with higher values of shipments. The most dramatic change was in the production of electricity for export. Provincial demand for electricity continued to increase but not rapidly enough to offset drastic cuts in exports due to excellent water flow for hydro power in the Pacific Northwest, and lower energy prices for thermal generation.

Secondary manufacturing and product fabrication increased substantially in 1986, partly from Expo 86 related activity and partly from a lagged recovery from the 1985 recession. Employment growth slowed significantly which may signal a slowdown in the growth of shipments in 1987. Construction activity, increasingly classified as a form of "one-off" manufacturing, increased significantly in the residential, single and multi-family housing sector. However, capital and repair expenditures fell significantly, particularly in the public sector, despite the first significant increase in private sector expenditures since 1982.

The Canadian dollar rose steadily against the U.S. dollar for most of 1986 making our exports more expensive. This factor plus the prolonged work stoppage in the forest industry may explain why British Columbia exports to the U.S. fell by 2.2 percent in 1986. The fall of the U.S. dollar on international exchanges was a strong factor in explaining the rise in the value of the Yen and the 10.3 percent rise in British Columbia exports to Japan. The fall in the British pound was just strong enough to offset the fall in the U.S. dollar, to leave the value of the Canadian dollar roughly the same in U.K. markets. Factors other than

movements in currencies, therefore, must have influenced the 27.6 percent rise in British Columbia exports to the U.K. In total, British Columbia exports to all countries rose 3.7 percent in 1986.

Exports of British Columbia Products by Country of Destination[1]
(billions of dollars)



[1]Estimates based on Statistics Canada province of origin/lading statistics.
Source: Ministry of Economic Development.

Infrastructure services increased their contribution to Provincial GDP with transportation systems operating at higher levels than last year, a number of important new roads and other public transportation systems put in place, and steady increases in air traffic and cargo shipments. Over 50,000 new telephone lines were installed, over 7,000 kilometres of hydro power lines were built and another transmission line to Washington State was announced.

In the commercial services sector, retail and wholesale trade increased 8 percent with much of the gain taking place in specialty stores at the expense of general stores. Business services continued to grow at an annual rate in excess of 10 percent, the strongest showing continued to be in management consulting and computer services. 95 percent of firms have less than 20 employees and their flexible and versatile provision of services helps explain their dynamic growth. The continued easing of monetary conditions helped to fuel spectacular rises in the Vancouver and Toronto Stock Exchange indexes. There are some preliminary indications, however, that interest rates may have reached bottom and may be rising in the short term, which may tend to dampen further rises.

Tourism and Personal services received an enormous boost from Expo 86. Day visits to this World's Fair totalled 22.1 million, 40 percent higher than the most optimistic projections. And visitor volumes to the Province increased 21 percent over 1985. With the greater foreign awareness of British Columbia, the large increase in accommodation and restaurant capacity, and the new transportation structures in place or being built, it is expected that a whole new volume of tourism to the Province will be sustainable in the future.

Recreation and culture services also benefitted from Expo 86, including major new capital investment projects planned for Whistler and Big White ski resorts. Film production increased steadily as British Columbia's "Hollywood North" continued to attract film and TV show productions.

With over 50 percent of employment in the personal services industry consisting of those who are self-employed, it is not surprising that the number of people entering this sector increased by 50 percent between 1982 and 1986.

Employment in government services increased by 4.2 percent between 1985 and 1986, most of the increase taking place in the federal public administration area, and in health and welfare services. Employment in education services declined again for the third year in a row, employment in provincial public administration stayed static, while employment in Municipal public administration declined marginally.

RESOURCE EXTRACTION AND PROCESSING

Resource Extraction

The expansion of the forest industry into the interior of the province, the establishment of aluminum, copper, coal and natural gas industries, and the steady increase in processing of resources have all acted as a major engine of growth for the Provincial economy.

83,000 workers are employed in the forest industry in logging, sawmilling, pulp and paper, and remanufactured wood products. The forest industry accounts for an estimated 8 percent of the total value of goods and services, known as Gross Domestic Product (GDP), produced in British Columbia.

58,000 workers are employed in agriculture, fishing and food processing. Agriculture is very diversified including grain production in the Northeast, cattle ranching in the Interior, fruit and berry crops in the Interior and lower mainland, and dairy farming scattered throughout the Province but most concentrated in the lower mainland. Agriculture has close links with the food processing industry which employs 20,000 people and uses mainly local produce, including British Columbia's harvest of marine resources. Agriculture, fishing and food now account for 3.5 percent of GDP.

Over 29,000 workers are employed in mining, smelting and energy production with decreasing numbers in metal and coal mining being partly offset by increasing numbers in non-mineral extraction. Mining, smelting and energy production now account for 11.3 percent of GDP of which 2.1 percent comes from metal mining and smelting, 4.7 percent from coal, petroleum, and natural gas production, and 4 percent from electricity production.

Canada has a quarter of the world's fresh water supplies, of which one third is situated in British Columbia. This valuable resource has led to the development of 12,700 megawatts of power, most of which is owned by public utilities offering competitively priced electrical power which has acted as a strong inducement for certain types of new industry to locate in the Province. Electricity production accounts for 45 percent of the energy resources produced in British Columbia, with the balance roughly divided between coal, petroleum and natural gas.

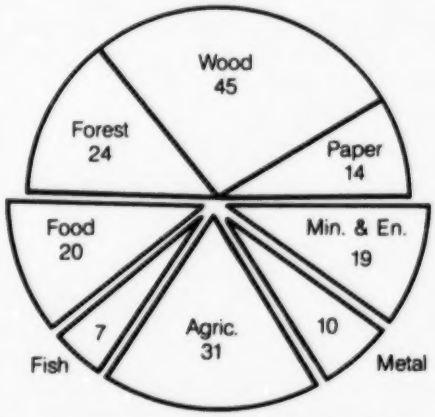
Resource Processing

Three-quarters of British Columbia's manufacturing output is attributable to resource processing which has maintained its world scale competitiveness by steadily investing in innovative technology. Over half of this resource processing is dominated by the large forest products industry. Despite the major work stoppage in the wood products industry, manufacturing shipments for the resource processing sector rose by 6 percent in 1986 to over $15 billion.

A drop of nearly 4 percent in employment in the wood products industry was offset by an equivalent increase in employment in the pulp and paper industry. This was not enough to stop an overall decline of nearly 3 percent in employment for the whole of the resource processing sector. The table on the following page and the respective sections of this report dealing with resource-based industries provide a more detailed analysis of conditions in the resource processing sector.

Historically, approximately 25 percent of British Columbia's GDP has been derived from exports, of which more than 90 percent has consisted of raw materials, such as natural gas, coal, metal concentrates, or resource based products, such as lumber, pulp and paper and refined metals. Although wage and labour costs tend to be higher than for the U.S., the Province's chief trading partner, the low price on raw materials has maintained British Columbia's cost advantage and helped to boost exports of raw and semi-processed natural resources.

British Columbia 1986 Employment
Resource Extraction & Processing
(thousands of persons)
Total Employment: 170,000



Source: Ministry of Economic Development.

PRIMARY MANUFACTURING SHIPMENTS AND EMPLOYMENT IN BRITISH COLUMBIA

Industry Group	SHIPMENTS (millions of dollars) 1985	1986[1]	1985/86 % CHANGE	EMPLOYMENT (thousands) 1985	1986[1]	1985/86 % CHANGE
RESOURCE PROCESSING	14,524	15,522	6.9	84.9	82.5	-2.8
Wood products	5,117	5,377	5.1	35.7	34.2	-4.2
Paper and Allied	3,411	3,951	15.8	17.5	18.5	5.8
Food	2,330	2,756	18.3	20.1	19.5	-3.2
Petroleum and Coal products	2,415	2,179	-9.8	0.9	1.1	19.1
Primary Metals	806	792	-1.7	6.6	6.0	-8.7
Non-metallic Mineral products	445	467	4.9	4.2	3.6	-14.3

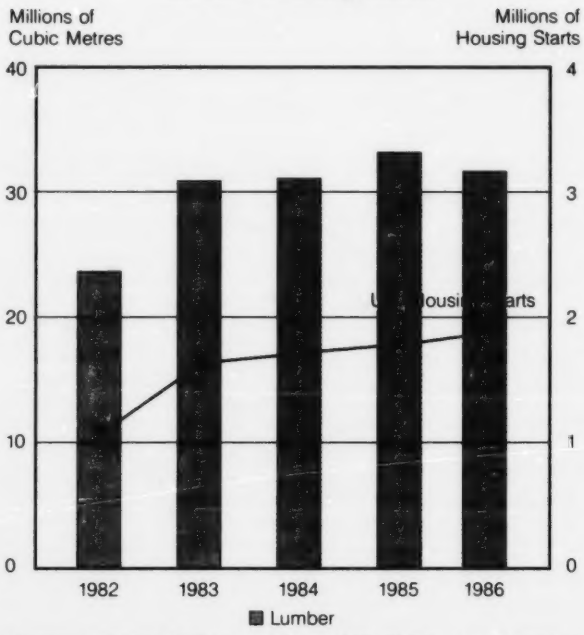
[1]Preliminary estimates.
Source: Statistics Canada, 31-001, 72-002.

Forestry

Overview

- ☐ Timber production again set a new record in 1986, with total production amounting to 77 million cubic metres, a 1 percent increase from that of 1985.
- ☐ Lumber production was slightly lower than that in 1985 because of the 18 week labour strike by the International Woodworkers of America, the longest strike in the history of the forest industry.
- ☐ Pulp production increased to 6.4 million tonnes in 1986, 5 percent above the record production of 1985.
- ☐ Shipments of newsprint rose to 1.5 million tonnes, a 2 percent increase over 1985 levels, while shipments of other paper and paperboard products rose 12 percent over 1985 to 1.1 million tonnes.
- ☐ 1986 witnessed a significant improvement in the profitability of the forest industry in British Columbia; the nine major publicly traded forest products companies together earned profits of more than $353 million.
- ☐ The protracted Canada/U.S. lumber disputes were resolved with the conclusion of the Canada/U.S. Lumber Memorandum of Understanding on December 30, 1987. According to the Agreement, the Canadian government has imposed a 15 percent export tax on Canadian lumber exported to the U.S. until replacement measures are put in place by the provinces.

British Columbia Lumber Production and U.S. Housing Starts



Sources: Statistics Canada, 35-001, 35-003, 35-204, U.S. Bureau of Commerce.

Wood Industry

The wood industry continued to improve in 1986 with stronger demand in Canada and the U.S. Lumber production in the first 8 months topped that for the same period in 1986. Total lumber production in 1986 was 31,468 thousand cubic metres, a 4.8 percent decline from that of 1985. This decrease was largely a result of an 18 week strike by the International Woodworkers of America. U.S. housing starts, a major consumer of Canadian lumber, increased to 1.8 million in 1986 from 1.7 million in 1985 due to the downward trend of mortgage rates, and Canadian housing starts reached an all time high of 199,785 units in 1986, a 20.5 percent increase from that of 1985. The result was a 2 percent increase in lumber consumption in North America in 1986. Lumber exports to the U.S. and overseas markets also rose and in the first 10 months of 1986, B.C.'s lumber exports increased by 2 percent.

As a result of higher demand, lumber prices increased somewhat in 1986, except for a brief period of downward pressure in the third quarter. The bellwether average spruce-pine-fir (SPF) 2x4 price increased by 19 percent, while the price of hemlock rose by 11 percent. However, these price levels were still lower than the historically high levels set in 1979 as the availability of additional supplies in the U.S. and Canada reduced the upward pressure.

Sales of wood chips were greater in 1986 because of stronger demand for pulp and newsprint. Overseas demand for wood chips was also quite strong in 1986 with the result that prices increased over the year.

Towards the end of 1986, Canada and the U.S. arrived at a negotiated settlement to resolve the lumber dispute. The Lumber Agreement, signed on December 30, 1986, stipulates that an interim 15 percent export tax be imposed on Canadian lumber exports to the U.S. until provincial measures for replacing the export tax are put in place. The export tax has yet to generate any major impact on the lumber industry given the buoyant state of the lumber market. It is expected, however, that the tax, or its replacement measures, will result in a slight reduction in lumber exports to the U.S. in the longer term. On the whole, the severity of the impact will depend on the state of the lumber industry. In view of the projected slowdown in U.S. housing starts to the level of 1.65 million—a result of the recent tax reform and the export tax—the outlook for the lumber industry in B.C. in 1987 is for a slight drop in production and prices.

While total plywood production dropped 7 percent from 1,641 thousand cubic metres in 1985 to 1,534 thousand cubic metres in 1986, plywood prices remained relatively strong as the average prices of Canadian softwood plywood increased by 25 percent. Plywood will continue

to be under competitive pressure from reconstituted board such as waferboard and oriented strand board. The industry has undergone some structural changes in recent years resulting in reductions in capacity and employment. This condition will be countered to some extent by the province's first waferboard mill which is currently under construction at Dawson Creek. As the Canadian housing market is projected to remain strong in 1987, the outlook for plywood is for stable prices and production.

Pulp and Paper

For the 24 mills that comprise British Columbia's pulp and paper sector, 1986 was a year of labour negotiations, record production levels, and a welcome recovery in product selling prices.

The year began with contract talks between company representatives and the two major unions representing the majority of the Province's 13,000 pulp and paper workers. The talks were successfully concluded in April—two months prior to expiry of the industry's existing contract.

The importance of this early labour agreement was overshadowed in the media by the subsequent four and one half month strike of logging and sawmill workers. While their strike did affect pulp and paper production at a few mills, the strike's overall impact on the sector was negligible. During the strike period, provincial production of pulp and paper was actually ahead of output recorded during the corresponding period in 1985.

For the year in total, provincial pulp production in 1986 was 6.4 million tonnes, surpassing by 5 percent the previous record established only one year earlier.

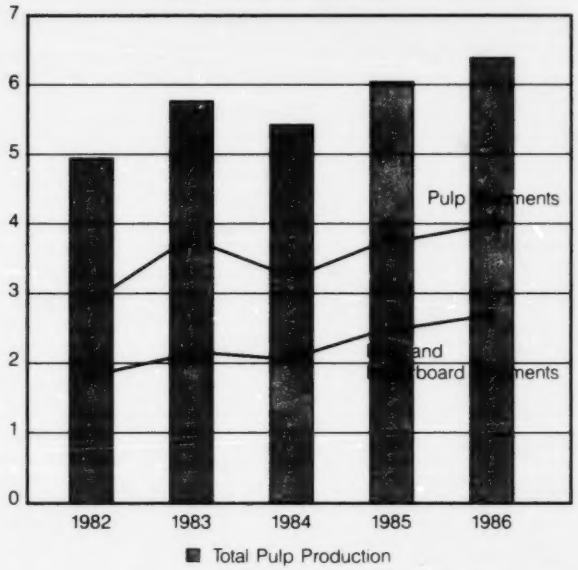
Approximately 40 percent of British Columbia's pulp production is consumed at mill in the manufacture of newsprint and other paper and paperboard. Shipments of the resulting newsprint equalled 1.5 million tonnes in 1986, a 2 percent increase over their 1985 level. Shipments of the various grades classified as other paper and paperboard totalled 1.1 million tonnes, up 12 percent over 1985.

British Columbia pulp that is not consumed at mill is sold to fibre deficient paper mills elsewhere in Canada and throughout some 60 countries around the world. Shipments of such pulp (most of which is classified as "market pulp") reached 4.0 million tonnes in 1986, an increase of 10 percent over the previous shipment record established in 1985.

Impressive as these production and shipment gains were, it was stronger selling prices that most benefited British Columbia's pulp and paper sector during 1986. Dollar denominated transaction prices for the commodity grades—bleached softwood kraft pulp, newsprint and

British Columbia Pulp Production[1] and Shipments of Pulp and Paper and Paperboard

(millions of metric tonnes)



[1]A portion of pulp production is converted in-mill and shipped as paper and paperboard; remainder is sold and shipped for conversion at buyer mills.

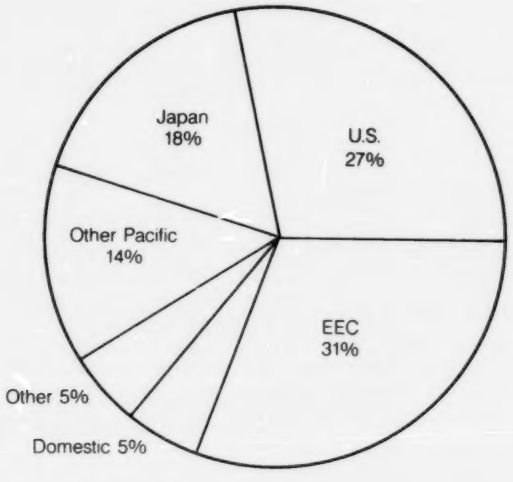
Sources: Statistics Canada, 36-204.
Canadian Pulp & Paper Association (figures adjusted for comparability with Statistics Canada data).

linerboard—declined and remained soft during 1984/85. Reasons for the declines varied by product and market. Generally, however, the price erosion was related to unfavourable supply/demand ratios and the relative strength of the United States dollar vis-a-vis Nordic and EEC currencies.

Prices rebounded in 1986 in response to higher industry operating rates worldwide, and the substantially weaker United States dollar. Most dramatic was the price movement in pulp. In successive quarterly increments, the United States dollar price for British Columbia bleached kraft delivered to Europe increased from $385 at the end of 1985 to an announced level of $550 for the first quarter of 1987. For the large volume of pulp that is now sold to Europe denominated in local buyer currencies, changing exchange rates increased the return to British Columbia producers even without price increases.

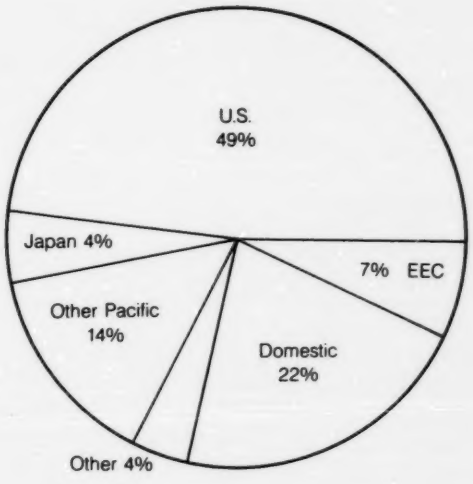
Clearly, 1986 was a good year for British Columbia's pulp and paper sector. Many industry observers expect 1987 to be as good or better. Increased activity in the Province's consulting engineering sector is an unmistakable signal that companies will use the opportunity to further modernize and expand their operations.

Distribution of British Columbia Pulp Shipments, 1986[1]



[1]Estimates.
Source: Ministry of Economic Development.

Distribution of British Columbia Paper Shipments, 1986[1]



[1]Estimates.
Source: Ministry of Economic Development.

Mining and Metal Refining

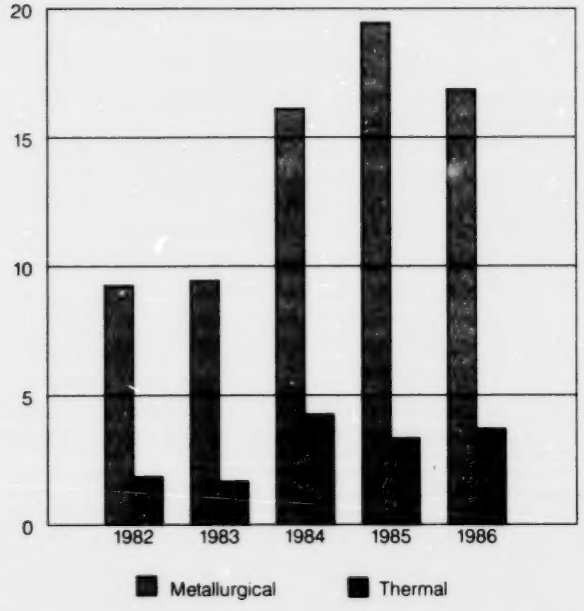
Overview

- ☐ Coal shipments decreased by 4.6 percent to 21.5 million metric tonnes during 1986.
- ☐ The value of metals production increased 12.4 percent in 1986, however employment in metal mining declined by 3 percent from 1985 levels.
- ☐ Primary metal production declined slightly during 1986 for lead and zinc smelting, however aluminum smelting ran at 100 percent of capacity for a third year in a row.

Coal Mining

During 1986, shipments of coal from British Columbia mines are estimated to have decreased by 4.6 percent from 1985 levels to 21.5 million tonnes, and the total value of coal shipments decreased by an estimated 2.8 percent to just over $1 billion. Metallurgical coal accounted for 80.7 percent of the volume of production, thermal coal accounting for the remainder. The declines in both the quantity and value of coal from 1985 levels reflected reduced volumes taken on many coal contracts, and prices for most producers were down. Coal accounted for an estimated 31 percent of the total value of mineral and petroleum output in British Columbia during 1986.

British Columbia Coal Production
(millions of metric tonnes)



Source: Ministry of Energy, Mines and Petroleum Resources.

World markets for coal continued to be depressed in 1986, a combination of stagnant demand and increased world supplies resulting in price cuts for producers and a reduction in coal purchases by the Japanese steel industry, the major customer of the British Columbia coal industry. Coal producers reacted to changing market conditions by seeking greater sales to markets outside Japan.

Gulf Canada Limited continued feasibility studies for the Mt. Klappan anthracite property located near Stewart in the northwestern part of British Columbia. Gulf began sending trial cargoes of coal from Stewart in 1985 and continued to ship trial cargoes in 1986 to test markets in Europe, Eastern Canada and South Korea. A decision on full-scale construction of the mine may be made soon with plans to produce 1.5 million tonnes of anthracite a year initially, and higher output levels being possible if justified by market conditions.

Quintette Coal Ltd. began developing a new pit late in 1986 to supplement coal production from existing pits in order to maintain production capacity at 5 million tonnes per year. The Shikano pit, which will produce about 1 million tonnes of coal for 11 years, is scheduled to commence production in the second quarter of 1987.

During 1987, coal production in British Columbia is not expected to increase and may decline slightly from 1986 levels. The immediate outlook is for little growth in markets for metallurgical coal reflecting negligible expansion of world steel production. The outlook for thermal coal is more optimistic. There is potential for replacing coal imported from the United States for Ontario Hydro with coal from western Canada when current contracts expire in 1992.

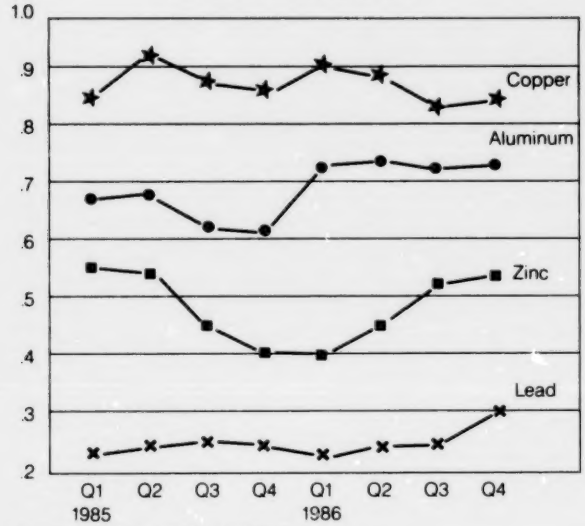
Metal Mining

The mining industry in British Columbia experienced a significant recovery in 1986. The value of over-all metal production was up 12.5 percent from $1,007 million in 1985 to $1,131 million in 1986. The turn-around in the industry was occasioned by higher prices for some metals and by a general improvement in the competitive position of the British Columbia industry. In the past few years, the industry has undertaken a number of significant cost-cutting measures aimed at improving operating efficiency. The effects of these actions, combined with the effect of a generally weak Canadian dollar, served to strengthen the industry's competitive position in key export markets during the year.

Given the industry's continued commitment to reducing costs and improving efficiency, the future prospects of the British Columbia industry appear encouraging. Optimism, however, is tempered by an uncertain outlook for metal prices. In this regard, there is widespread concern that excess global capacity and weakening world demand, considered characteristic of current world metal markets, may continue.

In 1986 the British Columbia metal industry was once again dominated by copper which accounted for 55 percent of the value of metal production during the year. Copper prices continued to weaken, reflecting the continu-

International Metal Prices
Quarterly Averages
(Canadian dollars per pound)



Source: London Metals Exchange.

ing decline in world demand for the metal and an oversupply from some Third World producers. Although the British Columbia copper industry has become increasingly efficient in the past few years, the continuation of low copper prices made it difficult for several copper mines to sustain profitable operations in 1986. One such example was the Similkameen mine in Princeton. The closure of this mine in late summer was averted only through the provision of an assistance package coordinated by the Commissioner of Critical Industries.

Despite lower prices, production of copper in the Province increased 10 percent to 332 million kilograms in 1986 from 302 kilograms in 1985. The first full year of operations at the Brenda mine in Peachland and the Bell mine in Granisle, both of which reopened in 1985, were the significant factors underlying the production increase. For the year, the increase in production outweighed the drop in copper prices and, as a result, the value of copper produced in the province rose 7 percent in 1986 to reach $620 million.

In July 1986, the Highland Valley Copper partnership of Lornex Mining Corporation and Cominco Ltd. was formed. The operation will produce 181,000 tonnes per year of copper concentrate, an increase of 39,000 tonnes per year over the combined output of the two operations in 1985. In the fall of 1986, copper cathode production began at Gibraltar Mines' new solvent extraction-electrowinning plant. The system, which treats leach solution from low grade ore waste dumps, was completed in October at a cost of $12.6 million, $4.4 million under budget. Plans to extend operations at Noranda's Bell mine were also announced during the year. Re-opened in 1985 through the efforts of the Commissioner of Critical Industries, the mine will now continue operating through 1989 due to better than forecasted operational efficiencies.

World lead and zinc markets continued to be affected by labour disputes at several major mines and refineries during the year leading to some improvement in prices, particularly in the latter part of the year, as the effects of the disputes on metal supply became evident.

In Canadian dollars, the average price of lead on the London Metals Exchange (LME) rose 6 percent from 24.2 cents per pound in 1985 to 25.7 cents per pound in 1986. Despite the higher prices, lead production in British Columbia fell 12 percent during the year as a result of a prolonged summer shutdown at the Sullivan mine. The reduction in output outweighed the price increase and the value of lead production declined from $42 million in 1985 to $37 million in 1986.

Although zinc prices strengthened in the latter part of the year, the annual average LME price in Canadian dollars declined slightly to 47.7 cents per pound from 48.4 cents per pound in the previous year. However, a dramatic 29 percent increase in zinc production during the year countered this decline in price and the value of zinc production in British Columbia rose 19 percent to $134 million.

During 1986, production of molybdenum concentrate increased by 58 percent to 10.7 million kilograms from the 6.8 million kilograms in 1985. At the same time, however, oxide prices fell by 11 percent which was partially offset by a shift in the orientation of the molybdenum products shipped, from molybdic oxide to higher priced specialty products such as lubricants and chemicals. The net result was a 3 percent increase in the value of production.

The production increase was due mainly to the first full year of production at the Brenda copper-molybdenum mine, which produced a record output of 4.35 million kilograms of concentrate. The re-opening of the Endako molybdenum mine near Fraser Lake, following a four year shutdown, also added to the increase in provincial production. The re-opening was prompted by the provision of discounts in electricity rates over the next five years, and by the granting of wage rate concessions by the Endako employees.

The outlook for 1987 is for relative stability in the world molybdenum markets with prices expected to remain at current levels and molybdenum production expected to remain fairly constant.

Higher prices and higher production in 1986 combined to increase the value of gold produced in British Columbia by a dramatic 64 percent to $155 million in 1986 from $95 million in 1985. The gold mining industry in the province responded positively to the upward trend in prices experienced throughout most of the year. Gold production increased 29 percent in 1986. Contributing to this increase was the opening of the Blackdome mine near Clinton where production will average 1,400 kilograms of gold and 6,800 kilograms of silver annually, and a decision by Mascot Gold Mines Ltd. to proceed with the development of its Nickel Plate gold mine near Hedley which will reach annual gold production of 4,050 kilograms by 1988. In Cassiar, Erickson Resources Ltd. completed a major gold exploration program and

discovered significant extensions to the vein system currently being mined. The company also completed a 300,000 kilogram per day mill to replace the old milling facility and annual gold production from the mill should be 1,345 kilograms.

Silver, while displaying some of the characteristics of gold, is different due to its value as both an industrial and investment metal. While both these uses of silver showed improvements for 1986, the market for silver continued to be characterized by excess supply with the result that prices for 1986 were down by 16 percent, declining from a yearly average of $9.12 Canadian in 1985 to $7.48 in 1986. Silver production in British Columbia, however, increased by 16 percent for the same period, resulting in an overall increase in the value of production of 7 percent. Contributing to the increased production during the year was the completion of a major expansion of the milling facility at the Equity Silver Mine and the opening of the Blackdome Mine.

Exploration for metals in British Columbia was up significantly for 1986. This was in part due to the higher price for gold, but also because of exploration successes, flow-through shares and the new provincial government exploration incentive program, Financial Assistance for Mineral Exploration (FAME). Expenditures for mineral exploration for 1986 will be in the area of $92 million, a 16 percent increase over 1985.

Primary Metals

Cominco, the world's largest lead/zinc smelter accounting for 5 percent of world lead/zinc trade, operated the lead smelter at 82 percent capacity, producing 111,000 tonnes. The zinc smelter, operating at 89 percent capacity, produced 242,000 tonnes. In comparison with 1985, 1986 production of lead and zinc was down 8 percent.

The zinc smelter was recently modernized and is one of the most efficient of its type in the world. Plans to modernize the lead smelter at Trail were announced in August 1986. This $171 million program, which is presently underway, will increase the efficiency at the plant allowing continued production despite depressed world prices, and is due for completion in mid-1989.

Aluminum production at Alcan's Kitimat plant was 273,000 tonnes for 1986, down slightly from the 275,000 tonnes produced during 1985. However, production levels continued to exceed the planned plant capacity of 268,000 tonnes because of Alcan's extremely efficient operation. Plans to maintain production above capacity in the near term, despite generally weak markets, will continue because of Alcan's successful marketing in the Pacific Rim area.

Industrial Minerals and Structural Materials

This industry consists mainly of companies engaged in the production of construction materials, asbestos products, sulphur, fiberglass insulation, glass, abrasives and refractories. The value of industrial minerals produced in British Columbia increased approximately 19 percent during 1986 to $133 million, up from $111 million in 1985. Structural materials, which are more dependent on construction activity, experienced a slight increase of 1 percent to $235 million in 1986 from $233 million in 1985.

Asbestos, which accounts for about 15 percent of the total value of industrial minerals and structural materials in British Columbia, was down about 10 percent in volume and approximately 13 percent in value to $50 million. During the year, Cassiar Mining Corporation started a $4 million underground exploration and development program to confirm reserves at its new McDame Asbestos deposit. The present Cassiar open pit will be exhausted in 1991.

Cement production showed a small increase over the 1985 levels, increasing 2 percent, while the value of this production increased 6 percent from $75 million to $79 million. Cement and sand/gravel each account for about one quarter of the value of British Columbia's production of industrial minerals and structural materials. Because of the dependence of this sector on construction activity, major projects such as the Coquihalla Highway, upgrading of the Rogers Pass rail lines and the Richmond Freeway have made a major contribution in sustaining the value of structural materials production.

Energy

Overview

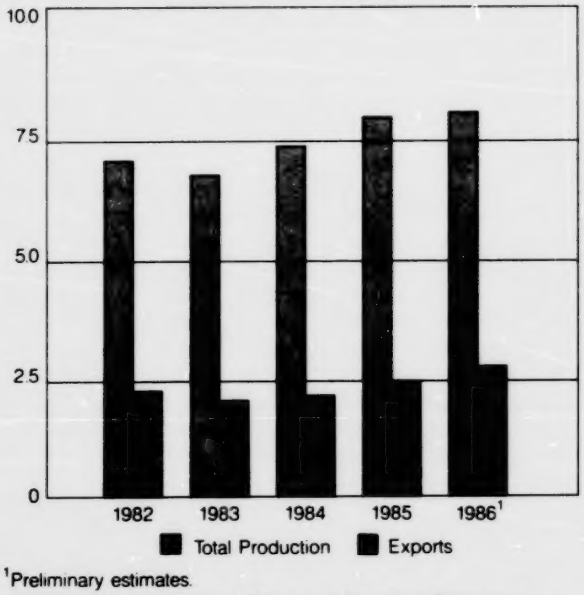
- ☐ Production of natural gas increased by less than 1 percent and electricity production decreased by 14.2 percent during 1986.
- ☐ Exports of electricity were back to 1983 levels during 1986, after the record setting exports of 1985.
- ☐ Although there has been some increase in oil prices from the depressed levels of 1985, the outlook is still uncertain in terms of oil exploration, production and government oil revenues for 1987.
- ☐ The Agreement on Natural Gas Markets and Prices was implemented during 1986 resulting in a market-oriented natural gas pricing system, and facilitating natural gas sales for the domestic market and for export.

Natural Gas

Total export deliveries of natural gas were up slightly during 1986, and, with completion of natural gas deregulation, it is expected that gas exports to the U.S. will increase over the medium term.

Construction was completed in 1986 on the new 550 tonne per day ammonia plant adjacent to the existing methanol plant in Kitimat. The plant commenced production in December for delivery to California customers. Other markets are being developed on the Pacific Rim, including Costa Rica. The plant operators will soon make application to the Ministry of Environment and Parks for a second ammonia storage tank. The additional storage will improve marketing flexibility and provide for swap opportunities with other producers.

British Columbia Natural Gas Production and Exports
(billions of cubic metres)



[1]Preliminary estimates.
Source: Ministry of Energy, Mines and Petroleum Resources.

Petroleum and Petroleum Products

The production of crude oil and condensates amounted to 2.4 million cubic metres in 1986, up from 2.1 million cubic metres in the previous year. Only about 25 percent of crude oil feedstocks of British Columbia refineries are produced in B.C., with the balance imported from Alberta.

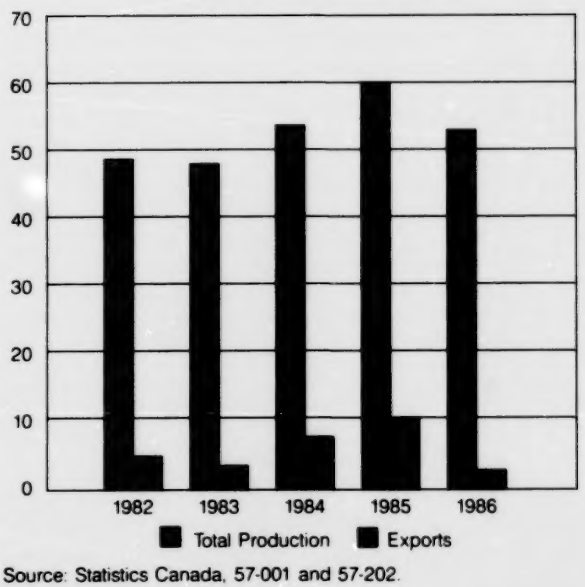
All of British Columbia's crude oil production is in the northeast of the Province and forms part of the Western Canadian Basin. In order to increase oil exploration activity, the Province introduced a scheme of royalty holidays for new oil wells. The royalty exemption applies to oil wells drilled before June 30, 1989. Exploration wells receive a three year royalty exemption while all other wells will receive a two year exemption.

Electric Power

Electricity generation in 1986 is estimated at 50,773 gigawatt hours (GWH), down about 14.2 percent from 1985, mainly because of poor export demand. While domestic consumption increased by about 1 percent, electricity exports declined dramatically from 11,231 GWH to 4,709 GWH, owing to the favourable water situation in the Pacific Northwest, as well as declines in oil prices leading to increased thermal power generation in California.

As B.C. Hydro had a surplus of hydroelectricity capacity, it continued to offer surplus electricity for a discounted price to large industrial users in British Columbia who increased power consumption under the Industrial Electricity Rate Discount Act. This program has been successful in selling surplus power and stimulating industrial activity in the Province.

British Columbia Electricity Production and Exports
(thousands of gigawatt hours)



Source: Statistics Canada, 57-001 and 57-202.

Agriculture and Food

Overview

- ☐ Total farm cash receipts exceeded the billion dollar mark for the second year, rising fractionally from 1985's revised $1,010 million to $1,017 million.
- ☐ Improved operating efficiency, combined with relatively stable or declining input costs, raised farm net income modestly above the $174.8 million achieved in 1985, to the levels reached in 1979 and 1980.
- ☐ A cool wet spring delayed vegetable plantings and cut small fruit production, but the following extended period of good summer weather proved beneficial for most crops.
- ☐ Food prices advanced by 4.6 percent (annual average) during 1986, somewhat faster than the Vancouver Consumer Price Index in total, and more than twice the rise in 1985; nevertheless, there was no commensurate rise in farm gate prices.

Livestock and Products

Receipts from livestock and related products rose 4 percent to $629 million. The bulk of the increase was attributable to increased gross income from poultry, hogs, cattle and calves. Most other subsectors recorded little change in receipts as production, prices, or both were generally lower than in 1985.

The largest component of the agriculture industry is dairying which regularly accounts for almost one quarter of total farm cash receipts. It is also the most stable as the market is regulated to closely match supply with demand, and prices are established by regulation on the basis of production costs. During 1986, total milk production increased by less than one percent. Fluid milk sales rose but industrial milk sales declined from 1985 levels. As a result, farm cash receipts were 2 percent lower at $230 million.

Cash receipts from the sale of hogs jumped by 14 percent on the strength of higher prices, although a sharp drop was experienced at year end. Returns from cattle and calves were 8.3 percent higher in 1986 as producer prices moved upward. Reduction of breeding herds continued in British Columbia, beef cow numbers were down 3 percent, beef heifers for breeding were down 4 percent, and dairy cows and heifers were down 1 and 3 percent respectively from a year earlier. Hog numbers remained virtually unchanged.

For Canada as a whole, the downward trend appears to have halted temporarily, the beef heifer inventory was 3 percent higher at mid year, with most of the gain concentrated in the Prairie provinces. Hog numbers in Western Canada were also up 4 percent. It is believed that weak grain prices are encouraging Prairie grain producers to divert more of the crop to livestock rather than selling it directly. However, abundant supplies of all red meats and poultry continued to hold livestock prices down to levels insufficient to encourage greater output.

Lower grain prices translate into lower feed prices, a particularly important factor in the poultry industry. Although output of both poultry and eggs is closely regulated through Canada-wide quotas, prices tend to be extremely sensitive to production costs. Poultry producers are benefiting from the trend toward low-cholesterol foods as well as competitive pricing. Farm cash receipts from poultry meat jumped 12 percent in 1986 to $102 million. The Canadian Chicken Marketing Agency set the initial British Columbia domestic production quota for 1987 at 52 million kilograms, up 5.9 percent from the 1986 quota. However, the B.C. Chicken Marketing Board has announced that it will allow producers a further 1 million pounds in 1987, to be corrected by cutbacks in 1988 and 1989. The magnitude of the increase is expected to hold producer and retail prices down. For egg producers the situation is somewhat different. Health concerns have changed breakfast food preferences to the extent that total egg consumption advanced only fractionally in 1986, despite a small decline in producer prices, with farm cash receipts from eggs remaining little changed from 1985 at $59.4 million.

Fruit, Vegetables and Field Crops

Farm cash receipts from crops declined 3.7 percent to $337 million. Performance within the various components of the group was mixed, with relatively minor changes in returns for fruits and vegetables (together accounting for over half of the total) being more than offset by a sharp drop in income from grains and oilseeds.

The year proved to be a vast improvement over 1985 in terms of growing conditions, and yields of principal field crops rose substantially: spring wheat production increased 24 percent, tame hay was up 27 percent, fodder corn up 57 percent, barley up 76 percent, and canola-rapeseed up 79 percent. However, farm income dropped sharply, primarily as a result of a dramatic reduction in grain prices. In April, the Canadian Wheat Board cut its base wheat price 19 percent, and reduced initial payments by 27 percent, in response to a world-wide grain surplus.

Analysts place most of the blame for the current agricultural malaise on the European Economic Community which has encouraged self-sufficiency in agriculture by subsidizing the industry heavily. The result has been production well in excess of EEC domestic consumption, sales in markets traditionally held by the U.S.A., Canada and Australia, and escalation of the subsidy war by the U.S.A.—accompanied by price cutting—as that na-

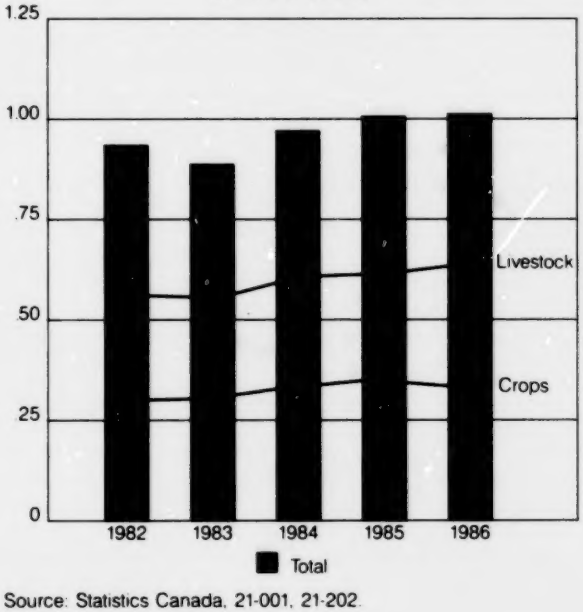
tion attempts to halt further deterioration in its imposing trade deficit. The U.S. reduced the floor price of wheat by 27 percent in the fall of 1985 but provided a substantial subsidy to cushion the impact if producers would reduce the acreage planted. However, the U.S. grain harvest in 1986 was only about 5 percent below the preceding year, largely because of good growing conditions over much of the Midwest and because of the tendency to remove only the poorest land under any acreage reduction program. Grains and oilseeds traditionally represent only about 6 percent of total farm cash receipts in the Province but there are fears that the subsidy wars and protectionist responses might soon encompass many other commodities.

Growers of grapes, berries and tree fruits recorded mixed results in 1986, as reflected in cash receipts of $96 million, virtually unchanged from 1985. The year was below normal for tree fruits, particularly in the northern part of the Okanagan Valley. Apple yields were light but this meant that sizes and quality were generally good. Unfortunately for producers, the total Northern Hemisphere apple crop was estimated to be 6 percent higher than in 1985, with Washington State recording a 10 percent increase over their 5 year average. Once again the cherry crop was hard hit by rain leading to fruit splitting at harvest time. Grape yields were down significantly but the quality was good and the crop was substantially above early estimates. Cold, wet spring weather adversely affected berry crops on the Lower Mainland but prices rose in response to strong domestic demand. Vegetable producers fared reasonably well despite a late start but receipts from potatoes were down slightly due to price erosion caused by substantial imports from the U.S. Cash receipts from vegetables and potatoes totalled almost $99 million.

The farming industry continued to adjust to changing demands resulting from shifts in consumer preferences, changes in input costs and world-wide surpluses of many commodities. It was only in the recent past that there were fears of shortages of basic foodstuffs and farmers were encouraged to increase output. Despite a difficult operating environment, the industry as a whole has exhibited exceptional stability—although many overextended farmers have been forced out of business. The future is clouded by political issues much more than in the past. There is fear that the subsidy wars will escalate as the U.S. attempts to regain or at least retain traditional foreign markets. Secondary effects could also have a major impact if farmers shift to other commodities (e.g. grain to livestock) in response to low prices. Also on the horizon is the on-going freer trade negotiations with the U.S.A. and the upcoming round of GATT. Concessions on issues directly affecting agriculture would necessitate some major readjustments in the industry. Despite the foregoing, the outlook for 1987 is for a small increase in total farm cash receipts, a modest advance in farm gate prices, and further improvement in net farm income resulting from lower interest rates and higher productivity.

British Columbia Farm Cash Receipts

(billions of dollars)



Source: Statistics Canada, 21-001, 21-202.

Food Processing

Food processing in British Columbia utilizes both locally produced agricultural products (canned and frozen fruits and vegetables, fruit drinks, wine, dairy, poultry, beef and pork products) and those produced elsewhere (sugar, soft drinks, coffee, tropical fruits). A number of products comprise various combinations of local and imported ingredients.

In 1986, manufacturers' shipments of food products reached $2.7 billion, 15.8 percent more than in 1985. As retail food prices only advanced by 4.6 percent (Vancouver CPI) more than two-thirds of the increase in the value of shipments can be attributed to higher output. At the same time, employment declined by 2.5 percent, reflecting continued rationalization of the industry.

The beverage industry has experienced a somewhat different economic environment with overall sales development hampered by consumer resistance to high prices and by lifestyle considerations. Whereas food processors are declining in number, there has been a substantial increase in beverage manufacturers in the form of cottage breweries and estate wineries. This trend is expected to continue and, although the small firms are likely to capture only a small part of the total market, they will have a profound effect on the operating style of the industry majors.

In 1985 the Province and the federal government signed the Agri-Food Regional Development Sub-Agreement (ARDSA) to enhance all aspects of the agricultural and food industries. One aspect of this initiative is the Food Industry Development Program which provides grants for projects related to food product and market development, new processing technology development and productivity advisory services. Up to the end of October 1986, $808,000 in F.I.D.P grants had been given for 43 projects, which created 173 jobs and stimulated $2.2 million in private sector investments.

Food Pacific 86 proved to be the highlight of the year for the food processing industry. The four day food trade show, held August 29 - September 2 at B.C. Place Stadium in Vancouver, attracted over 18,600 registered trade visitors representing more than 70 countries. The reported and projected sales for British Columbia firms totalled more than $57 million, and an analysis of the trade show indicated an economic impact of more than $69 million provincially and $122 million nationally. Plans are already underway to stage a 1988 exposition, again aimed at the huge Pacific Rim market.

Marine Resources

Overview

- ☐ The total harvest of marine resources in British Columbia increased by 5 percent over 1985, while the wholesale value was down marginally to an estimated $690 million.
- ☐ Strong cycle years for salmon stocks resulted in high catch levels for the second year running. The wholesale value of processed salmon products was unchanged at an estimated $500 million.
- ☐ Herring landings declined again in 1986 to reach an estimated low of 16,377 tonnes.
- ☐ The value of aquaculture production increased almost 70 percent to an estimated $6.8 million in 1986.

Commercial Fishing

Salmon

The salmon fishery is the most valuable component of the fishing industry, accounting for close to 68 percent of the total value of fish landings. In 1986, the fishery benefited from strong salmon returns for the second year running, the catch was down only 5 percent from the previous year to an estimated 100,000 tonnes. During the past two seasons, strong cycle years for salmon stocks combined with the returns from the Salmonid Enhancement Program have resulted in record catch levels.

Salmon is marketed predominantly as canned, frozen or fresh production. In 1986 close to 55 percent of the catch was canned, while the remainder was marketed as frozen or fresh fish, or other specialty products. The split between canned and fresh/frozen production is largely determined by the mix of salmon species caught, a high proportion of sockeye and pink salmon are canned relative to other salmon species.

The wholesale value of marketed salmon products was equivalent to the previous year at an estimated $500 million. Export prices were strong for canned and frozen sockeye, but weaker for all other species. The comparative strength of sockeye prices likely was a result of favourable exchange rate movements in Japan, and lower Alaskan sockeye catches relative to 1985.

Exports generally account for about 50 percent of canned salmon production and 90 percent of frozen production. In 1986, British Columbia processing companies exported salmon to 28 countries. The principal markets were Japan, the EEC, the United States, Australia and New Zealand.

British Columbia faces strong competition from Alaska, but also from Japan, the USSR, Norway and Scotland. In Alaska, the 1986 salmon harvest was estimated at 128 million salmon, down by 8 percent from the previous year.

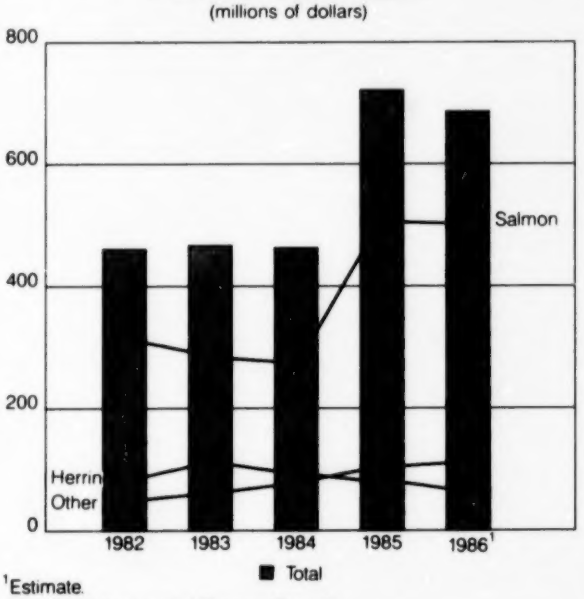
Herring

British Columbia's herring fisheries rank second to salmon in terms of the value they contribute to the industry. The roe herring fishery, which occurs in the spring of each year, is by far the most important and generally accounts for over 95 percent of total herring landings. A smaller fishery takes place at the same time to harvest spawn on kelp. In the fall of each year, a small additional catch is taken for food and bait purposes.

In recent years, declining stocks and reduced catches have been a source of concern to the industry. Fisheries scientists have generally attributed this decline to temporary oceanographic conditions caused by a northward shift of the warm El Nino current. Landings were in steady decline from 1983 through to 1986 when they reached an estimated low of 16,377 tonnes. The decline from 1985 to 1986 was close to 35 percent, both in terms of total landings and the wholesale value of the products produced. Early indications of the 1987 spring harvest indicate a sharp reversal in this trend.

The major market for herring roe is Japan, where the roe is a traditional delicacy, particularly for the New Year. Pacific coast fisheries off California, British Columbia and Alaska are the primary sources of supply. In 1986, British Columbia supplied about 23 percent of the market, compared with about 66 percent provided by Alaska. Relative to 1985, total world landings where down by close to 20 percent, primarily as a result of lower catches in British

British Columbia Marine Resources
Wholesale Market Value
(millions of dollars)



[1]Estimate.
Source: Fisheries and Oceans Canada.

Columbia and Alaska. Import prices in terms of Canadian dollars were up slightly from 1985, but less than would be expected considering tight supplies and the strong yen.

Other Fisheries

Halibut, and a diverse variety of groundfish and shellfish species support a number of small fisheries off the British Columbia coast. In 1986, these fisheries accounted for 20 percent of the total value of landings. Halibut landings were up an estimated 10 percent from 1985, groundfish landings were up by close to 40 percent primarily as a result of a strong showing for the offshore hake fishery combined with increases in greycod and rockfish landings. Shellfish landings were relatively stable, with some species showing moderate increases.

Aquaculture

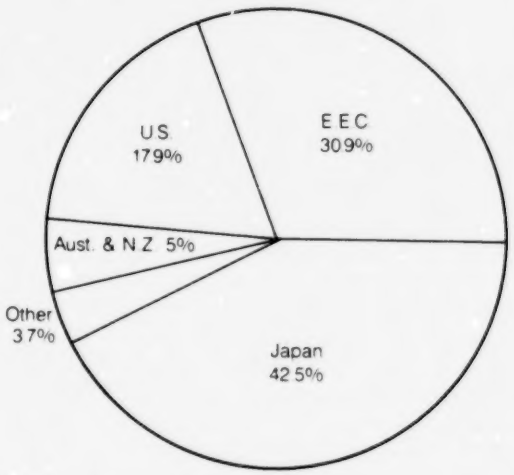
Aquaculture in British Columbia is a small, but rapidly expanding industry based primarily on the cultivation of oysters, salmon and trout. The culture of other species such as black cod, carp, abalone, mussels and clams is in the research and development stage.

Total production in 1986 was valued at an estimated $6.8 million, an increase of almost 70 percent from the previous year. Salmon production contributed the most to this growth, with more than a three-fold increase in the total value of production over the previous year to $3 million. Oyster and trout production in 1986 were valued at an estimated $3 million and $0.8 million respectively.

The rapid growth in the salmon farming industry has led to some concerns regarding resource use conflicts with recreational and commercial fisheries, and the environmental impacts of salmon farming. The provincial government responded to these concerns by appointing a one-man Commission of Inquiry, Chaired by Mr. David Gillespie, which reported to the government in December of 1986. The report was very positive regarding the benefits of the salmon farming industry, but also recognized the many public concerns. The government is now in the process of implementing the Commission's recommendations.

The strength of the industry is derived from the ideal oceanographic conditions which are available in the coastal areas off British Columbia for the culture of fish and shellfish. Aquaculture offers expanding employment opportunities for coastal communities, and the policy reform initiated through the Commission of Inquiry will provide a solid foundation for future growth.

Distribution of British Columbia Fish Exports for 1986 by Country of Destination



Source: Ministry of Economic Development

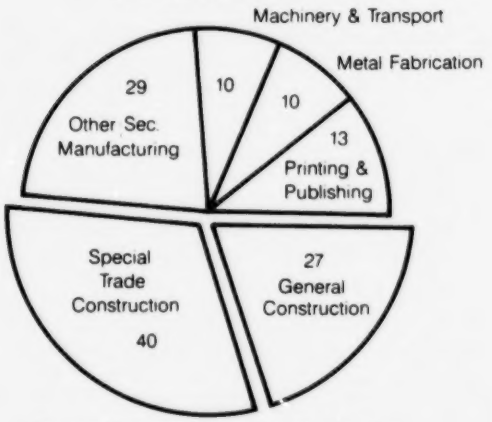
SECONDARY MANUFACTURING AND CONSTRUCTION

Primary processing of natural resources still constitutes three-quarters of manufacturing activity in British Columbia, although the share attributable to secondary, or fabricated products manufacturing has increased slightly from 23 percent in 1976 to 25 percent of total manufacturing in 1986. Secondary manufacturing contributed 4 percent to GDP in 1986, and employed 62,000 people.

Over 80 percent of fabricated products manufactured are exported to the U.S. In analyzing Provincial costs in comparison to equivalent U.S. manufacturers, it appears that growth in primary manufacturing, or resource processing, has depended on lower priced material costs offsetting the comparatively higher Provincial wage structure. The materials cost advantage which occurs for secondary manufacturers is much smaller than for primary processors which means that some secondary manufacturers do not have a cost advantage compared with the U.S. Those sectors which appear to have some cost advantage are Chemicals, Clothing, Furniture, Machinery, Metal Fabricating and Plastics. Growth in 1986 manufacturing shipments for these sectors was almost twice as great as for other fabricated products manufacturers, indicating the critical importance of material and labour costs in the development of secondary manufacturing.

British Columbia 1986 Employment
Secondary Manufacturing & Construction
(thousands of persons)

Total Employment: 129,000



Source: Ministry of Economic Development.

In terms of employment, transportation equipment with 9,700 employees, printing and publishing with 9,500 employees and metal fabricating with 8,400 employees are the three largest sectors. Important among manufacturing industries are machinery and transportation equipment, for which sawmill and mining equipment, logging trucks and off-road vehicles are key products serving forest and mining sectors. Ship and boat building, provide equipment and support services for the Province's traditional coastal industries of fishing and marine transportation, as well as advanced sub-sea technology employed in offshore exploration and development, particularly in the Arctic and the Beaufort Sea.

Newspaper and magazine publishing accounts for nearly 40 percent of employment in the printing and publishing industry, and has steadily replaced other forms of commercial printing such as business forms and advertising. The British Columbia wage structure is higher and the size and efficiency of machinery tends to be much lower than for U.S. and eastern Canadian commercial printers. This has not hampered past growth, which has been rapid, but may lead to some erosion by in-house and "desk-top" publishing systems. Steady improvements in technology in 1986 have helped to increase efficiency in many plants.

Metal fabrication manufacturers have been adversely affected by the slowdown in new capital investment in western Canada since the 1982/83 recession. Major efforts at rationalizing and restructuring led to a small decline in employment in this industry in 1986. Structural components account for nearly 22 percent, machine shops for nearly 15 percent, and metal doors and windows for nearly 11 percent of employment. The sector appears to have some cost advantage in comparison to the U.S. but exports are hampered by the high cost of transporting products to distant markets.

Other important secondary manufacturing in the Province includes consumer-oriented industries such as furniture and fixtures, and a fast growing electronics industry noted for its achievements in communication and the application of sophisticated technology to a range of industrial processes. Accompanying developments in the resource and manufacturing industries has been complementary growth in construction of infrastructure in the form of road, rail, air and port facilities. As Canada's gateway to the Pacific Rim, transportation makes a major contribution to employment and earnings in British Columbia.

Total British Columbia construction activity in 1986 is estimated to have reached $9.6 billion employing 67,000 workers. Construction is generally defined as a secondary industry, on the same level as and closely related to manufacturing. Various components of almost every construction project can be pre-built in a factory setting, and construction itself is a form of "one-off" manufacturing making increasing use of these pre-built or manufactured components.

There are substantial backward linkages in the construction industry to consulting engineers, architects, surveyors, estimators, trucking firms, financial institutions and suppliers of building materials. Forward linkages include real estate, insurance, financial and legal services, maintenance, private utilities, public utilities and administration to name just a few. The level of activity in the industry, over time, tends to be directly proportional to population and economic growth, and the industry can be characterized as predominantly locally owned and operated.

Manufacturing

Overview

- ☐ Manufacturing shipments by the secondary, fabricated products industries rose by an estimated 10.8 percent in 1986 to nearly $5 billion.
- ☐ All industries participated in the ongoing recovery from the 1982-83 recession.
- ☐ Employment rose marginally for all industries except metal fabricating and electrical products, leading to more than a 1 percent increase in employment for the manufacturing sector.

Secondary manufacturing shipments were estimated to increase a substantial 10.8 percent over 1985 to over $5 billion. This matches the 10 percent increase in employment in 1985 in anticipation of higher 1986 production. Employment increased only 1.4 percent in 1986 which may indicate that inventories have been replenished, and that 1987 production is not expected to grow at an unusually rapid pace.

The largest gains in value of shipments were recorded for machinery, up 17.5 percent over 1985, metal fabricating, up 15.6 percent, and clothing, up 14.6 percent. Employment rose 8.3 percent over 1985 for printing and publishing, and 6.6 percent for transportation equipment. Despite significant increases in shipments for metal fabricating and electrical products, employment in these industries fell 9.8 percent and 12.7 percent respectively compared with 1985. This contrasts with sharp increases in employment last year, indicating that secondary manufacturing has fully recovered from the 1982-83 recession and appears set for the resumption of more normal growth.

Employment in the fabricating industry has been adversely affected by the slowdown in new capital investment in British Columbia and other western provinces in the last 5 years. Many of the large public construction projects undertaken in anticipation of Expo 86 such as the Skytrain and the Expo site itself were completed in the first half of 1986. With no expectations of sustained spending on public sector projects, and with only a small recovery in capital spending in the private sector, many metal fabricators have layed off employees for the near term.

The increase in capital spending in primary forestry, secondary wood products, chemical products and construction itself, all helped to increase production in machinery and transportation. Over half the employment in transportation equipment is in ship and boat building, and the industry can expect to do very well if the Polar 8 ice-breaker contract is given to a British Columbia shipyard. Two shipyards closed in 1986, and two smaller yards reorganized as worker cooperatives to prepare for the increased global competition in this industry.

SECONDARY MANUFACTURING SHIPMENTS AND EMPLOYMENT IN BRITISH COLUMBIA

Industry Group	SHIPMENTS (millions of dollars) 1985	1986	1985/86 % Change	EMPLOYMENT (thousands) 1985	1986[1]	1985/86 % Change
Fabricated Products	4,538	5,029	10.8	51.3	52.0	1.4
Metal Fabricating	808	934	15.6	8.9	8.0	-9.8
Transportation Equipment	751	792	5.5	9.2	9.8	6.6
Printing and Publishing[2]	563	614	9.1	9.5	10.3	8.3
Chemicals	554	577	4.2	3.3	3.4	0.6
Machinery	417	490	17.5	4.7	4.8	1.7
Electrical Products	214	230	7.5	4.8	4.2	-12.7
Clothing	151	173	14.6	(N/A)[3]	(N/A)[3]	
Furniture and Fixtures	113	138	22.1	(N/A)[3]	(N/A)[3]	
Miscellaneous	967	1,081	11.8	10.9	11.6	6.4

[1]Preliminary estimates.

[2]Ministry of Economic Development preliminary estimate.

[3]Included in "Miscellaneous".

Source: Statistics Canada, 31-001, 72-002.

Construction

Overview

- ☐ Capital and repair expenditures in British Columbia fell 6 percent in 1986 to $12.7 billion.
- ☐ Housing starts continued their upward trend, increasing 15 percent from 1985 to reach an estimated 20,670 units.

Total Activity

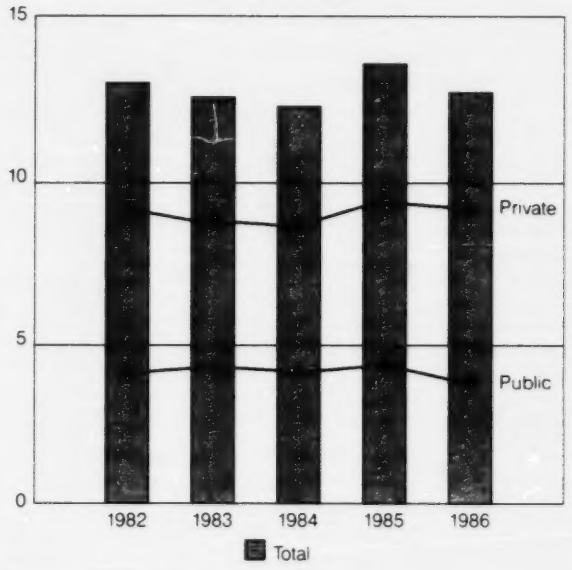
Capital and repair expenditures were estimated at $12,748 million in 1986, down 6 percent from 1985—which proved to be a far better year than earlier estimated—but $560 million more than in 1984. Weak markets for much of the Province's mineral and energy production continued to have a dampening effect on investment activity. New capital investment fell 8.1 percent in 1986 while repair expenditures rose fractionally.

Non-Residential

Few sectors of the provincial economy experienced appreciable gains in capital and repair investment in 1986. The only major non-residential group with higher outlays was manufacturing, up just under one percent over 1985. Within the manufacturing category, positive year to year changes ranged from 179 percent (metal fabricating) to one percent (other manufacturing). The bulk of the advance was attributable primarily to increased capital investment by the wood industries (up $51.1 million) and the chemical and chemical products industries (up $50.7 million). The largest decline recorded in the group was in the paper and allied industries sub-sector where capital outlays were $75.4 million lower. No other major non-residential groups recorded higher capital investment outlays in 1986. However, within the sub-sectors, gains were achieved in the construction industry (up 20.3 percent), primary forestry (up 9.5 percent), communications (up 3.6 percent) and institutions (up 1.7 percent). Repair expenditures were higher in: utilities, trade, finance and commercial, and institutions and government departments.

Total capital and repair outlays by the primary industries group, utilities, and the trade, financial and commercial services group were lower than in 1985, reflecting continuing weakness in economic conditions for much of the Province's resource base. Agriculture and fisheries expenditures were 7 percent lower due to the uncertainty surrounding the economic future of both industries. Mining, oil and gas expenditures were off 23.6 percent, or $276 million, largely in response to a marked shift in the scale of development. Unlike the massive projects of the recent past, the mining sector is currently limited to small new precious metals mines and productivity improvements at existing larger operations. Utilities outlays during 1986 fell by 16.7 percent while the trade, finance and commercial services group expenditures dropped by 11.1 percent. Both declines can be attributed to an extended period of resource sector weakness which has impacted on other sectors, leading to a widespread paring of operating costs and capital expansion plans. These cutbacks are believed to have accomplished their objectives, suggesting that the period of retrenchment is over and that 1987 outlays will show a modest advance.

British Columbia
Capital and Repair Expenditures
(billions of dollars)



Source: Statistics Canada. 61-205 and 61-206.

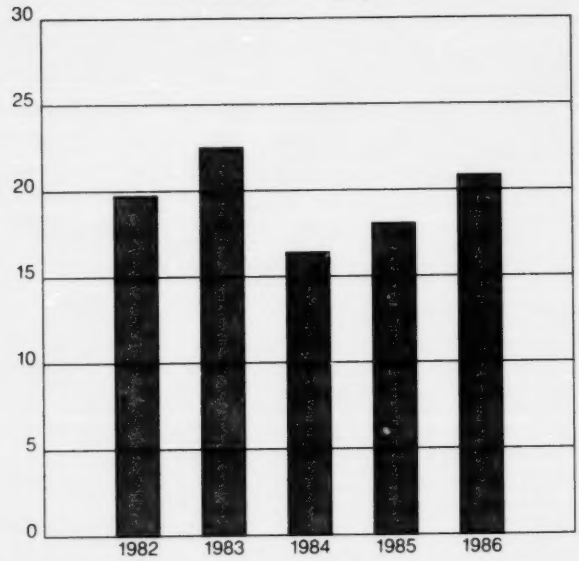
Major projects completed in 1986 included Phase I of the Coquihalla Highway (Hope to Merritt), Phase I of the Annacis Highway and Bridge system, the initial phase of the Metro Place Centre shopping mall in Burnaby and Ocelot Industries ammonia plant at Kitimat. During the early part of the year work on the pavilions and grounds of Expo 86 was completed, to be followed at year end by the start of demolition work preparing the bulk of the site for redevelopment as part of B.C. Place.

A number of major undertakings begun in 1986 or earlier will continue on into 1987 and beyond. Chief among these projects are: the Rogers Pass rail tunnel, Nickel Plate gold mine at Hedley, Highland Valley mine integration, the Merritt-Kamloops and Merritt-Okanagan links of the Coquihalla Highway, Phase II of the Annacis Crossing system (East-West connection), the Moli Energy battery plant in Maple Ridge and the ALRT Surrey extension. Work will also be underway on expansion of the lead smelter at Trail, and at a number of precious metals mines. In addition to these large capital projects at various stages of construction, the near-term outlook is for the industry to experience modest growth as the provincial economy continues to strengthen.

Residential

In the period prior to 1982, property values increased dramatically and an extremely active residential real estate market encouraged residential construction at a rate which could not be sustained. Building starts over the two years 1980 and 1981 exceeded 79,000 units. The economic slowdown that followed sharply reduced new housing construction, a situation exacerbated by high mortgage rates, a large inventory of unsold housing, and vacant rental accommodations. In 1982, housing starts were halved to just under 20,000 units and in 1984 they slipped further to 16,169. Since that low point was reached, surplus housing stock has been reduced—except in a number of smaller, resource communities—and demand has started to recover.

British Columbia Dwelling Starts
(thousands of dwellings)



Source: Statistics Canada, 64-002.

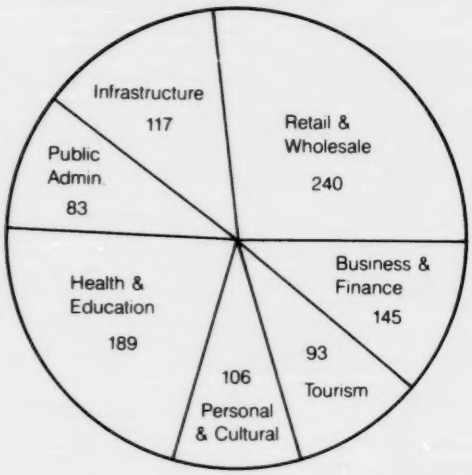
Interest rates continued to fall in 1986 and personal incomes advanced slowly, raising the demand for both new and pre-owned housing in the Province. Real estate agents reported both strengthening prices and a high volume of sales. Vacancy rates in rental accommodation decreased sufficiently in the large metropolitan Vancouver and Victoria markets to encourage investment in apartment buildings and row housing, up 20 and 14 percent respectively from 1985 starts. Single family housing (single detached units) starts were also up by 14 percent. Total housing starts for the Province were estimated at 20,670 units, 15 percent above the previous year. Total capital and repair expenditures on housing of all kinds were estimated at $3 billion, up $187.5 million or 6.6 percent. With mortgage rates continuing to fall in the early months and economic conditions steadily improving, the housing sector is expected to post a further advance in 1987.

SERVICE INDUSTRIES

Service industries represent 73 percent of GDP in British Columbia and account for 76 percent of employment. The rapid growth is illustrated in the accompanying table showing changes in employment and value added to GDP over the last 8 years. During that period 85 percent of the new jobs created were in service industries, and 62 percent of those new jobs were in firms which employed less than 5 employees. This rapid growth may slow down in the future as each new job created in services, particularly knowledge based services, will require a greater capital investment per job. The era of low cost service jobs appears to be coming to an end.

British Columbia 1986 Employment
Service Industries
(thousands of persons)

Total Employment: 973,000



Source: Ministry of Economic Development.

The strongest growth rates have been in knowledge intensive industries where specialization continues to increase, encouraging even more "out-sourcing" of knowledge based functions by conventional resource and manufacturing firms. More and more of those service jobs require higher education and specialization, signaling an end to the rapid growth in service jobs with low educational requirements. The increasing competition faced by British Columbia as a result of the globalization of markets will lead to long term structural changes which can only enhance the Province's ability to move into the rapidly growing field of service industry exports. With the exception of Tourism, almost all of those industries will be knowledge based.

Globalization of resource and manufacturing industries fueled the great growth in trade in goods since 1945. This growth has now slowed down as domestic production of resource and manufactured goods represents 36 percent of World GDP and goods exports have reached 18 percent of World GDP. On the other hand, service industry production represents 64 percent of World GDP, but service industry exports only amount to 4 percent of World GDP. That is, only 6 percent of World service industry production is involved in trade, while close to 50 percent of goods production is involved in trade. The world appears to be poised on the brink of a rapid expansion in service industry exports which may catch up to or surpass the trade in goods.

Using several alternative ways of measuring service industry exports, Canada is currently in twentieth position in the world, behind several Third World countries. As one of the largest goods exporters in the world, Canada has some catching up to do in service industry exports. There is a consensus of opinion that the Pacific Rim is likely to be the arena where demand for service industry exports is going to grow most rapidly. As Canada's gateway to the Pacific, British Columbia stands to benefit greatly from these future changes.

Vancouver is the western terminus for both the Canadian National and Canadian Pacific Railways, and the hub of the British Columbia Railway. It is the largest bulk cargo port on the western seaboard of North America, and accounts, directly and indirectly, for 57,000 jobs, or 4.6 percent of the Provincial workforce. The port of Prince Rupert is considerably smaller than Vancouver but is growing rapidly as industrial expansion takes place in northern British Columbia. Road and air transportation are important elements of the Province's highly developed transportation network, and major service facilities for national and international carriers are located in British Columbia. A rapidly expanding communication system, and the well developed electrical transmission and pipeline network all contribute to the Province's growing reputation in service infrastructure expertise. Although business opportunities are limited by the relatively small size of local markets and the distances from more major ones, a growing number of firms are conquering the barriers of distance, high risk and the difficulties of operating in foreign markets, and gaining an international reputation in their specialized areas of expertise.

British Columbia's economy is strongly export-oriented, reflecting not only the Province's geographic location on the Pacific Rim and the ease this provides for the transportation overseas of the economy's predominantly bulk resource exports, but also historic trading links with Britain and the United States. Manufacturing industries are also subject to strong pressures to export in order to realize the necessary economies of scale to cover the high costs of research, new product development, and capital investment, which are a fact of life in today's economic environment, and which local markets alone are too small to support. This has created a thriving market for commercial services firms capable of providing the expertise needed by resource processors and secon-

dary manufacturers, both domestically and in international markets.

Tourism is one of the most important sub-sectors of the service industry accounting for nearly 5 percent of GDP. It is a labour-intensive industry, generating permanent employment for a workforce of 90,000, which rises to 125,000 during the peak season. Recent developments have included the creation of year-round destination resorts, new and upgraded skiing facilities, a legacy from Expo 86 which will boost tourism over the next decade, the promotion of British Columbia as an international convention centre, and the location of interesting ports of call for cruise ships operating on the West Coast.

Film production is also on its way to becoming an important part of this service sector, providing a unique blend of the Province's natural resources, creative arts and technological skills. The wide range of physical environments, rich supply of qualified and experienced support personnel, and relative proximity to the centre of the American movie industry make British Columbia a preferred location for film-making in Canada.

Service industry statistical data is collected by function and profession, such as computer services or legal and accounting services, rather than by output, such as sawmill lumber being produced with the assistance of computers, accountants and lawyers. This makes it difficult to compare service industries in terms of value added, cost of inputs, and labour costs when looking at other countries. It is hard to know where British Columbia has a cost advantage because we cannot "see" the final product, only the cost of each service function involved in the process. The graphs and tables in this introduction and in the following service industry studies simply set out the current situation with some historical comparisons.

SERVICE INDUSTRY EMPLOYMENT AND VALUE ADDED TO GDP IN BRITISH COLUMBIA: 1976 TO 1984

Industry Group	EMPLOYMENT (thousands) 1976	1984	1976/84 % Change	VALUE ADDED TO GDP (millions of 1971 dollars) 1976	1984	1976/84 % Change
Infrastructure Services						
Transportation	71	64	-9.9	1,545	1,796	+16.2
Communications	24	30	+25.0			
Utilities	12	14	+16.7	455	588	+29.2
Commercial Services						
Retail and Wholesale Trade	193	222	+15.1	1,641	1,819	+10.8
Finance, Insurance, Real Estate	59	79	+33.9	1,455	2,362	+62.3
Business	37	55	+48.6	497	648	+30.4
Tourism & Personal Services						
Tourism and Hospitality	57	84	+47.3	754	881	+16.8
Recreation and Culture	11	16	+45.4			
Personal and Miscellaneous	41	61	+48.8			
Government Services						
Education	70	79	+12.9	579	616	+ 6.4
Health	68	105	+54.5	541	754	+33.8
Public Administration	68	81	+19.1	855	944	+10.4
All Service Industries	711	890	+25.0	8,322	10,408	+25.0

Service Infrastructure

Transportation

Overview

- ☐ In spite of a significant decline in coal production in 1986, freight shipped through the rail and port infrastructure of British Columbia increased from the 1985 levels. Much of this increase was due to significant gains in grain and forest product shipments.
- ☐ Canadian Pacific Railway's $600 million Rogers Pass Project reached a significant milestone in 1986 with the clearing of the 14.5 km tunnel through Mount MacDonald.
- ☐ Public transportation systems were dramatically enhanced in 1986 with the opening of Phase One of the Coquihalla Highway, the Sky Train from Vancouver to New Westminster, and the Fraser Bridge from North Delta to Annacis Island.

National Legislation

On November 4, 1986, Bill C-18, "An Act Respecting National Transportation", was tabled in the House of Commons. The purpose of this legislation is to create incentives that will lower costs and improve the service in the transportation sector. This would be achieved by increasing competition within each mode of transport and by reducing the level of government intervention.

In air transport, this legislation would mean less control of fares and entry and exit requirements for different carrier routes. However, control will be maintained over air service operations in the region north of the 55th parallel. In the rail sector, this Bill allows for negotiation of confidential freight rates between shippers and railways, gives common access to all rail lines to the competing railways, and streamlines the process by which railways can abandon inefficient branch lines. It is expected that this legislation will be enacted in the summer of 1987.

Rail

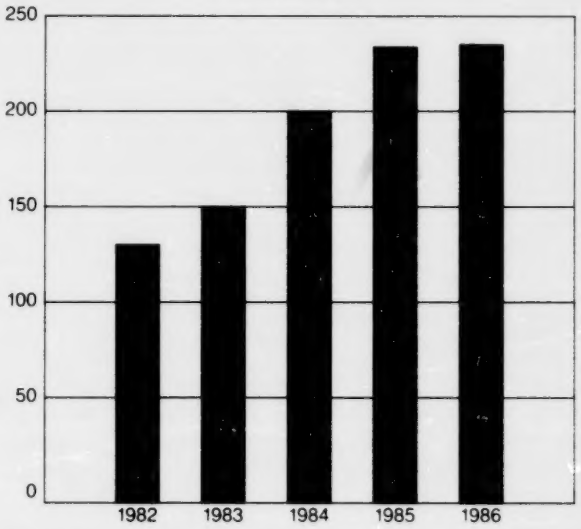
The British Columbia Railway (BCR) and the Canadian National Railway (CN) recorded small increases in freight movements during 1986, up from the record 1985 levels, while for the Canadian Pacific Railway (CPR) there was little change. Carloadings for the BCR were up 0.7 percent to 235,700, mainly due to increased shipments of grain and forest products, important factors for CN as well, which moved 275,600 carloads from B.C. locations.

For the CPR, operating primarily in southern British Columbia, the drop in Southeast coal production has meant a reduction in coal shipments offset in part by increased grain shipments and stable forest product levels. Shipments of lead and zinc concentrate remained at the relatively high levels recorded in 1984 and 1985.

The BCR upgrade of the Chetwynd-Dawson Creek line has improved its grain transport capacity, and was completed in October 1986, at a cost of $6.25 million.

Carloadings for the British Columbia Railway

(thousands)



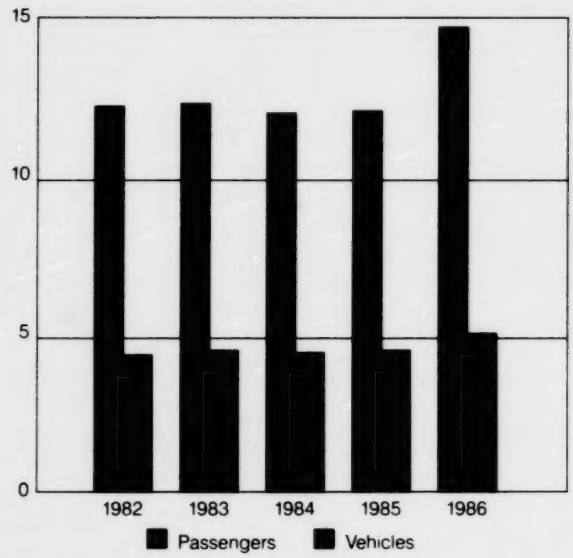
Source British Columbia Railway

CN spent approximately $18.6 million on renewal, and a further $81.2 million on upgrading and expansion in British Columbia during 1986. Upgrading of CN's north line totalled $54.6 million for the year, while expansion of CN facilities cost $26.6 million, and included double tracking, yard development and fibre optic signalling installations. CPR continued their work on the massive Rogers Pass project, which is still scheduled for completion in 1988. During 1986, $150 million was spent on reducing grades in the Rogers Pass, double tracking and building tunnels and bridges. Other capital expenditures amounting to $40 million included a coal car repair facility at Golden which is due for completion in April 1987.

Ferries

During 1986, the B.C. Ferry system experienced a substantial increase in traffic, most of which was attributable to Expo 86. Passenger movements totalled 14.7 million for a 22.5 percent increase over 1985, while vehicle traffic was up 14.6 percent to 5.1 million. 1986 was the first complete year in which the 14 ships from the Ministry of Transportation and Highways coastal routes were incorporated into the B.C. Ferries System. These routes represented a further 2.9 million passenger trips and 1.1 million vehicle trips for 1986.

British Columbia Ferry Corporation
Passenger and Vehicle Movements
(millions)



Source: British Columbia Ferry Corporation

Highways

Expenditures for highway development and upgrading by the Ministry of Transportation and Highways were $581 million for the 1986/87 fiscal year. The ongoing highways maintenance totalled $280 million. These amounts represent a decrease of 18 percent from fiscal 1985/86.

The completion of two major projects highlighted 1986. In May, Phase 1 of the Coquihalla Highway from Hope to Merritt was opened. Phase 2 of this highway running between Merritt and Kamloops is due for completion in August 1987, and the Phase 3 Okanagan connector is currently under construction.

The second major project completed in 1986 was the Annacis crossing which opened in September. This crossing and the Richmond east-west freeway system will cost $450 million when completed of which $74 million was spent in 1986.

Work also continued on the upgrade of the Squamish Highway during 1986. This 10 year program involves the expansion of the highway to four lanes, the installation of debris control facilities and bridge replacement.

Urban Transit

The 21.4 kilometre Sky Train, a light rapid transit system linking downtown Vancouver with New Westminster, was opened January 3, 1986 at a total cost of $854 million. During the year, Sky Train carried a total of 34 million passengers of which 6.6 million were Expo visitors in transit between the main site and Canada Place. With the closing of Expo, the passenger count is expected to fall to 25 million in 1987. The 3.1 kilometre extension of Sky Train into Surrey is presently under construction and is due to be opened in February 1990 at a cost of $180 million.

Air

Passenger traffic through Vancouver International Airport was up 10.5 percent over 1985 with a total of 8.4 million arrivals and departures. Cargo for the same period increased by 17.1 percent to total 99,000 tonnes, while airmail decreased 7.7 percent from last year to 19,400 tonnes. These movements reflect a 17 percent increase in flights with a total of 374,000 aircraft take offs or landings. 1986 marked the completion of a $17 million upgrading program at Vancouver International Airport including improvements to the airfield, terminal and road system.

Ports

Cargo shipments through the Port of Vancouver were up over the 1985 total by 2.9 percent to a total of 57.6 million tonnes, which was the greatest volume since the 1984 record of 59.3 million tonnes. Of this increase, grain shipments were the greatest contributor increasing 1.1 million tonnes from 1985, while forest products shipments were up 421,000 tonnes over 1985. These were only partially offset by coal and coke shipments falling 531,000 tonnes, sulphur falling 311,000 tonnes and potash falling by 215,000 tonnes.

Volume records for the Port of Prince Rupert increased for the fourth consecutive year. During 1986, 10.7 million tonnes of cargo was shipped through the port, up 6 percent over 1985. The increase was primarily due to grain and forest products shipments, up by 76 and 22 percent respectively over 1985. These increases were partially offset by a drop in coal shipments which were down 7 percent.

Cruise ship traffic was up substantially in 1986, due primarily to Expo 86. The number of ship visits was up 27 percent to 233 from 184 in 1985. These visits carried 313,385 passengers, a 17 percent increase over the 267,472 carried in 1985.

Communications

Overview

- ☐ At the 1986 World's Fair, Expo 86, over 80 nations, provinces, states and corporations hosted pavilions focussing on the theme of transportation and communications.
- ☐ Three new private radio stations began broadcasting in 1986, two in Vancouver and one in the Fraser Valley.
- ☐ B.C. Tel, British Columbia's major telecommunications company, reported an annual gain of 54,095 customer lines, an increase of 7.4 percent over 1985.
- ☐ Exports of commercial and industrial telecommunications equipment reached $28.6 million in 1985.
- ☐ Employment in the communications industry increased 12.9 percent in 1986, rising from 31,000 to 35,000.

Broadcasting

British Columbia's geography lends itself well to the development of a rich and varied broadcasting industry. Because broadcasting signals do not carry well over the Province's mountainous terrain, many small radio stations have been established. In addition to the CBC/Radio Canada public broadcasting network, approximately 70 private originating radio stations, 8 private originating television stations and several hundred rebroadcasting stations are in operation. Three new originating stations began broadcasting in 1986.

The decline in profitability of British Columbia's broadcasting industry, which began early in the decade, was halted in 1986 when profit levels stabilized for private broadcasting stations. Between 1984 and 1985, net profits from private broadcasting stations in British Columbia, the Northwest Territories and the Yukon fell almost 27 percent from $8.5 million to $6.2 million.

Due to increased competition and economic pressures, many broadcasting stations have begun to network certain programs over satellite stations. Stations use satellites to share overnight programming or to introduce new programs, allowing economies of scale for many of the Province's smaller broadcasting stations.

Cable Television

Cable television is available to over 80 percent of British Columbia homes. In 1985, there were nearly 913,000 direct and indirect subscribers in British Columbia, the Yukon and the Northwest Territories.

Most of the cable systems have fewer than 6,000 subscribers, and many are small non-profit community cable systems. Between 1984 and 1985, the number of licenced cable systems in British Columbia increased, and employment in the industry increased nearly five percent, rising from 987 to 1,036.

Between 1984 and 1985, net profits from cable television operations increased to $4.93 million, largely resulting from rate adjustments. However, industry profits for 1986 increased only marginally over 1985 levels. A number of cable systems are experimenting with new advertising services, such as real estate and home shopping networks.

Telecommunications

Expo 86 helped focus the world's attention on British Columbia's telecommunication capabilities. In addition to co-sponsoring the Telecom Canada Pavilion with the other members of Telecom Canada, B.C. Tel, the Province's dominant telecommunication company, provided all the telecommunications infrastructure for the fair.

In 1986, B.C. Tel's annual gain in customer lines was 54,095, an increase of 7.4 percent over 1985. The total number of lines serviced by B.C. Tel in 1986 reached 1,579,245. The number of access lines per 100 people serviced by the three telephone companies operating in British Columbia (B.C. Tel, NorthwesTel and Prince Rupert Telephone Company) reached 53 in 1985, higher than any other province, and above the national rate for 1985 of 48.9.

B.C. Tel's financial performance in 1986 improved with net operating earnings from the company's telecommunications operations rising to $44.7 million over 1985 earnings, an increase of over 13 percent. B.C. Tel's manufacturing operation, Microtel Limited, also improved its financial performance in 1986, sales increasing 1.9 percent over 1985 to $170.7 in 1986. The company's net operating earnings increased from $0.3 million in 1985 to $4.3 million in 1986, moving it from a loss to a marginally profitable position in 1986.

The telecommunications equipment industry is one of British Columbia's growing export-oriented, secondary manufacturing industries. In 1985, the value of communication and industrial telecommunication equipment exports was over $28.6 million.

Utilities

Pipelines

British Columbia's main gas and oil transmission lines were completed in 1957 and 1961 respectively. Westcoast Transmission Company started construction of its gas pipeline from the Peace River District to the Lower Mainland in November 1955. It was completed in October 1957 and put into use immediately. The initial gas-gathering systems were built at the same time and have since been extended markedly, until now over 12,000 kilometres of gathering and distribution lines are in use in the Province. Following the discovery of prolific gas reserves in the Fort Nelson area, additional line was laid from Fort Nelson to join the original line at Chetwynd. Other pipelines serve the Cariboo, Okanagan, East and West Kootenays, and Prince Rupert areas. Condensate, butane, and propane are extracted from a gas cleaning plant located at Taylor and sulphur is produced at gas cleaning plants at Taylor, Fort Nelson and Chetwynd.

Crude oil pipelines in British Columbia are not as extensive as gas lines but are equally significant. There are two main systems in the Province, one servicing several fields situated north and east of Fort St. John, the other servicing the Aitken Creek, Blueberry, and Inga fields northwest of Fort St. John. Both lines deliver crude oil to the terminal facilities at Taylor, southeast of Fort St. John. Although some oil is refined at refineries at Taylor and Prince George, most is transported in Westcoast Petroleum Limited's pipeline to Kamloops and on to Vancouver refineries.

Power Transmission Grid

B.C. Hydro has the following transmission lines in service:

5,263 km of 500 Kilovolt lines,
3,968 km of 360, 287 and 230 Kilovolt lines,
4,159 km of 138 Kilovolt lines,
3,807 km of 60 Kilovolt lines.

In addition, thousands of kilometres of lines operate at distribution voltage.

During 1986, 201 km of transmission voltage lines and 738 km of distribution voltage lines were added to the system. British Columbia is interconnected with Alberta and Washington State by 500 KV transmission lines, and another transmission line to Washington State (Spokane) was announced in 1986.

Commercial Services

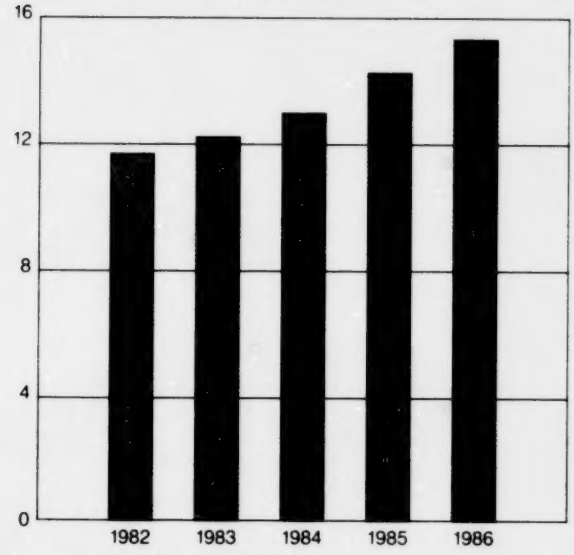
Retail and Wholesale Trade

Consumer confidence continued to rise in 1986 in response to a sharp drop in the cost of consumer financing and other evidence of economic recovery. Although retail sales increased at a slightly lower percentage rate than in 1985, the estimated 8 percent gain brought the total above $15.3 billion and continued the steady upward trend which commenced in 1983.

In dollar terms the advance was led by motor vehicle sales, with new vehicle sales up 14.2 percent in units and 27 percent in dollars during the first three quarters. The largest percentage gains were recorded by specialty stores, in the first 10 months sales by florists rose 28.4 percent, and personal accessories stores enjoyed a 24.5 percent advance while clothing stores, as a group, were up 16.9 percent. These impressive increases reflect both a willingness to spend on the part of consumers, and a continuing shift to specialty shops, as exemplified by a sales increase of only 6 percent recorded by department stores.

Not all retail groups shared in the general advance. General stores, a victim of the trend to specialization, continued to decline in importance as sales slipped a further 5.2 percent in the January-October period. Furniture and appliance stores showed a revenue reduction of 5.1 percent as a group, reflecting relative weakness in residential construction, while revenues of service stations and garages together were off 6.7 percent, largely because of a decline in gasoline prices.

Retail Sales in British Columbia
(billions of dollars)



Source: Statistics Canada, 63-005.

The wholesale trade, which covers sales to manufacturers, the building trades, service industries and others in addition to the retail sector, reported an impressive 12.4 percent improvement in receipts during the first 10 months of 1986. (The statistics include the Yukon and NWT but the rise in economic activity was concentrated within British Columbia.) Of the five regional groups in Canada, only Ontario exhibited a larger year to year increase.

Business Services

This sector comprises a wide range of diverse industries including advertising, accounting, management consulting, architecture, consulting engineering, security and investigation services, computer services, etc.

Business services are important inputs to industrial activity, providing ways to increase the efficiency of production, add value to products, and reach markets. In 1984, business services generated $1.6 billion in output and employed 55,000 persons in British Columbia. This is one of the fastest growing sectors with annual increases in output averaging over 11 percent annually in recent years. From 1976 to 1984, employment in the sector increased by over 48 percent. Business services are highly labour intensive with most jobs requiring specialized knowledge and skills.

An important driver of change in business services is the growing use of information technology in industry. This has increased the level of activity and the diversity of computer-related business services, and created new ways of providing other types of business services.

There are over 11,500 firms providing business services in the Province. Over 95 percent of these firms have fewer than 20 employees. The small size and highly competitive nature of these firms creates a very dynamic market.

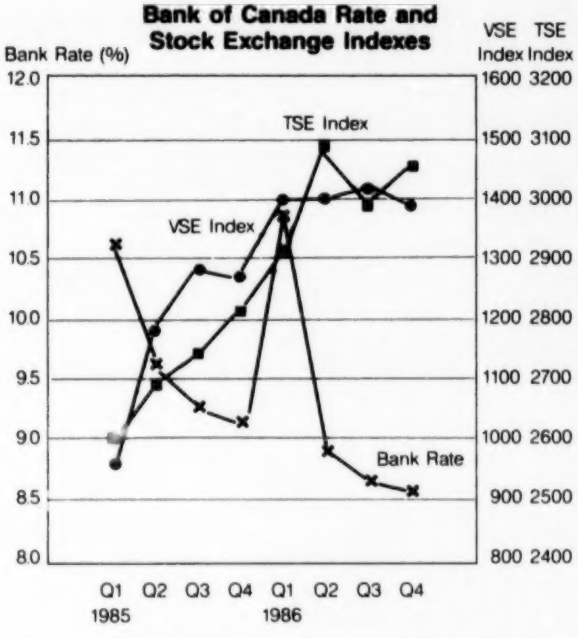
Finance, Insurance and Real Estate

This sector includes banks, securities dealers, trust and mortgage loan companies, credit unions, life insurance, property and casualty insurance, and real estate. In 1984, it generated $2.3 billion in output and employed 79,000 persons. The financial sector has demonstrated very strong growth in recent years.

The finance and insurance industries are currently in a state of flux driven by technological change and the growing internationalization of financial markets. The traditional divisions among the different institutions are becoming increasingly blurred. The federal and British Columbia governments have introduced major regulatory reforms to permit banking, insurance and trust establishments to provide a wider range of services in order to compete effectively in the new environment.

In the past year, the continuing easing of monetary conditions helped to fuel spectacular rises in the Vancouver and Toronto Stock Exchange indexes. However, the fall in the interest rates in the short end of the bond market were not duplicated in the market for long bonds. This may indicate a belief that interest rates have reached bottom and are expected to stay flat or rise slightly in the near term.

Bank of Canada Rate and Stock Exchange Indexes



Sources: Bank of Canada Review, Vancouver Stock Exchange, Toronto Stock Exchange.

Note: VSE Index 1982 = 1000; TSE Index 1975 = 1000.

Tourism and Personal Services

Tourism and Hospitality

Overview

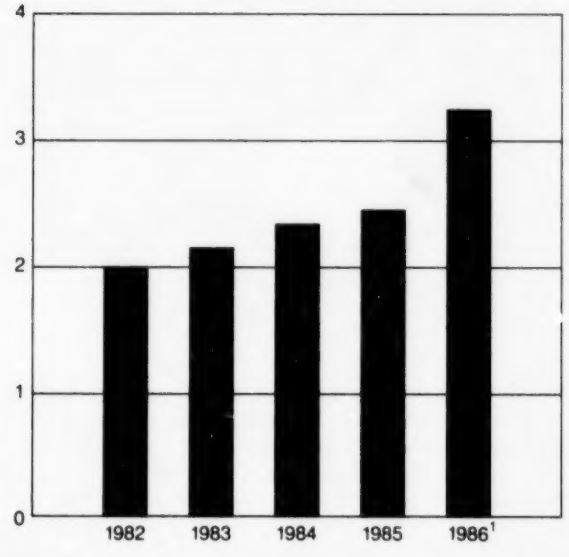
- ☐ Tourism revenues for 1986 are estimated at $3.24 billion, an increase of 35 percent over the $2.4 billion in 1985.
- ☐ Visitor volumes for 1986 increased 21 percent over 1985, establishing a new record of an estimated 15 million person-trips in the Province. The United States again accounted for the most significant growth in visitor volumes.
- ☐ Day visits to Expo 86 totalled 22.1 million, almost 40 percent higher than projected. The positive impact of Expo on the tourism industry in 1986 is reflected in the substantial increases in total tourism revenues and visitor volumes to British Columbia.

Tourism Indicators

Expo 86 had a significant impact on the tourism industry in 1986. Tourism industry revenues, estimated at $3.24 billion, were up approximately 35 percent over 1985. A record 15 million person-trips were made in the Province during 1986, exceeding by 21 percent the previous record set in 1981. Although the average length of trip remained unchanged from the previous year at five days, average per capita outlays amounted to approximately $45 per day, up 12 percent over 1985. The distribution of tourism expenditures on transportation, accommodation, meals, recreation and other items is shown in the graph below.

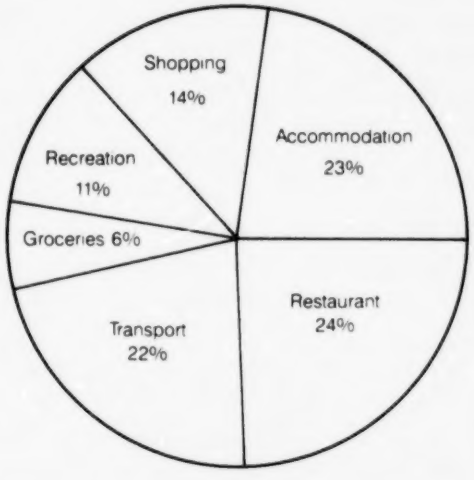
British Columbia Tourism Revenues

(billions of dollars)



[1]Estimate.
Source: Ministry of Tourism, Recreation and Culture.

Distribution of British Columbia Tourism Expenditures, 1986[1]



[1]Estimates
Source: Ministry of Tourism, Recreation and Culture

British Columbia residents travelling within the Province again comprised the largest share of visitor volumes, and accounted for 6.3 million person-trips in 1986. The number of visiting residents from the United States was up 47 percent from 1985 with an estimated 4.6 million person-trips. The Province also attracted 3.5 million person-trips from out-of-province Canadians and 0.6 million from overseas visitors. The largest influx of visitors to the Province took place when Expo 86 was in operation.

Accommodation and Restaurants

Accommodation establishments in the Province generated an estimated $745 million from tourism and business travel in 1986, up $265 million from 1985. Even with an increased supply of rooms available in the Lower Mainland, the annual occupancy rate of hotels rose to 63 percent, an increase of 7.6 percent over the previous year. Although the largest increase in occupancy rate was recorded in the Lower Mainland, significant increases were also experienced in most regions of the Province from May through October. Occupancy rates for motels and private campgrounds also increased during 1986. Provincial park campground attendance was slightly over 2 million, up 2.3 percent from 1985. Restaurant expen-

ditures by tourists in British Columbia were estimated to have been $777 million in 1986, a major increase over 1985.

Tourism-Related Transportation

Tourists spent an estimated $712 million on transportation related services while in British Columbia during 1986. Airline passenger traffic to both Vancouver and Victoria was up 13 percent compared with the previous year. B.C. Ferries showed a substantial increase of 28 percent in passenger traffic, with the greatest increases occurring between May and October. Summer vehicular traffic through Rogers Pass, the main highway entry point to British Columbia from other provinces, was also up by 9 percent over 1985. Cruise ships made 333 stops in Vancouver, Victoria and Prince Rupert, reflecting the marked increase in popularity of British Columbia ports of call for cruise ships.

Expo 86

Expo 86, with its theme of Transportation and Communications, proved to be the largest Specialized World Exposition ever held. An unprecedented 54 nations participated. Financial support from the corporate sector of more than $175 million also set a World Exposition record. It is estimated that Expo 86 created $2.8 billion in economic activity in British Columbia, and an additional $0.9 billion in the rest of Canada.

British Columbia and Canada experienced impressive increases in tourism revenues and visitor volumes during the year as a result of Expo 86. The number of United States and overseas visitors to the Province, recorded by person-trips, increased by 48 percent over 1985. The traditional tourist season in the Province was extended in line with the Exposition's five and one-half month operation. With 22.1 million day visits to the Expo site, significant increases in the hotel occupancy rate and usage of tourism-related transportation took place during this period, particularly in the Lower Mainland. Expo 86 provided international exposure to the Province which is expected to benefit the tourism industry well beyond 1986.

SELECTED TOURISM INDICATORS[1]

Indicator	1984	1985	1986[1]	1985/86 % CHANGE
U.S. Resident Overnight Entries (000's)	1,792	1,920	3,594	87.2
Overseas Entries (000's)	387	367	544	48.2
Rogers Pass Traffic Westbound (000's)	1,294	1,293	1,409	9.0
Estimated Hotel Occupancy Rate (%)	57.1	58.5	62.8	7.6
Provincial Park Campground Attendance (000's)	2,003	1,964	2,008	2.3
Total Restaurant Sales ($000,000)	1,442	1,526	1,742	14.2

[1]Calculation based on actual hotel occupancy.

[2]Preliminary estimates.

Recreation and Culture

In 1985, this sector had gross revenues of $1.1 million and employed close to 27,000 persons. The largest industries in the sector are: skiing, sport hunting and fishing, film production, motion picture theaters, sound recording, public libraries, sports admissions and performing arts. About 11 percent or $356 million of total tourism revenue was spent on recreation and entertainment. Expo gave a boost to all forms of recreation, as well as to the performing arts and cultural activities.

Ski Resorts

The Province's 21 major ski destinations registered 2.3 million visits in 1985/86, 14 percent lower than the record set in 1984/85. This decrease in skier volume was largely due to poorer weather conditions and a shorter than average ski season. Skiers generated revenues estimated at $320 million through expenditures on equipment, lifts, food, accommodation and transportation. Lift revenues amounted to about $30 million in 1985/86.

Substantial growth in the specialty ski market, particularly heliskiing which attracts mostly international participation, is expected to continue in the future. Several major developments are proposed for 1986/87 in anticipation of this expanding market. Major capital investment projects are also planned at Whistler and Big White ski resorts.

Culture

This sector includes the film and video production, sound recording and publishing industries as well as museums, galleries and other cultural institutions. Annual economic activities are valued at approximately $300 million and employment estimated at over 11,000.

The film and video production and sound recording industries have been very dynamic in recent years. In 1986, film production in British Columbia continued its expansion from the $90 million level in 1985, when it employed approximately 3,000 persons. British Columbia has been dubbed "Hollywood North", as it continued to attract film and TV show productions, primarily on-location shooting with British Columbia sets, crews and studios, from U.S. producers. A high percentage of the revenue earned is

derived from foreign productions shot in the Province. 1986 also saw the near-completion of the B.C. Film Centre in Burnaby, which is expected to attract more TV and movie makers to its 110,000 square feet of studio space.

The sound recording industry is small, generating $4.5 million in production revenue in 1985 and employing 600 persons. The industry's work is high quality, however, and is beginning to attract wider attention. An estimated $65 million in royalties is earned by local performers.

Personal and Miscellaneous

Personal services in British Columbia consist of a wide range of business operations including private household services, barber and beauty shops, laundries and dry cleaners, funeral services, and shoe repair shops. There were 12,200 establishments involved in the personal service industry, over 90 percent employing less than 20 employees. In fact, over 50 percent consist of people who are self-employed. This is very high compared with the 5 percent who are self-employed in all service industries in the Province.

Total employment in the personal services sector increased from 26,000 persons in 1982 to 39,000 in 1986, an increase of 50 percent in just four years. This underscores the substantial growth which British Columbia has experienced in all service industries in the last decade.

Government Services

Education

With 80,000 employees in 1986, the education industry returned to earlier levels after peaking at 85,000 employees in 1983. The share of value added to GDP has risen fairly steadily to 5.3 percent, indicative of a faster growth rate than for the economy as a whole, but still slightly behind the Canadian average.

Investment by education spending authorities declined between 1982 and 1986, in line with the expected decline in student enrollment. Employment and investment expenditures appear to have entered a period of stability, and the proportion of the population age group enrolling in post-secondary education has stabilized at about 17 percent. No major increases in enrollment at the elementary and secondary levels are foreseen due to stable demographic trends.

British Columbia higher education institutions are becoming increasingly involved in exporting education services through servicing a foreign clientele in the Province, establishing courses in foreign countries, and by preparing packages of education "software" to accompany sales of "hardware" such as trucks and airplanes. The high standards set by British Columbia's education industry and the large potential demand for education services overseas provide a strong impetus for future growth of exports of education services.

Health and Welfare

Health and welfare is the only industry in the public sector where employment has grown substantially, from 95,000 in 1982 to 109,000 in 1986. Health's share of GDP has gone from 5 to 5.9 percent over the same period, significantly higher than the Canadian average of 5.5 percent.

The economic growth of the health industry, particularly hospitals, has not slowed down over the last 5 years. If the demand for health care continues to grow, it will require substantially increased investment in facilities and buildings. The increased health care demand arises not out of demographic trends, but rather out of the increasing costs of technologically advanced equipment, highly qualified personnel, and the comprehensive nature of health services demanded by the public.

Only a small percentage of the health services produced in British Columbia are exported, due to the exclusive legislation and the fact that services are paid for, or subsidized by taxpayers. Nevertheless, British Columbia's reputation in the health care field makes it a very attractive candidate for servicing a large international clientele in the Pacific Rim, assuming full-cost pricing of health care services and no displacement of resident users.

Health care in developed countries is a large and growing field, leading to the development of U.S. hospital chains which have moved into the U.K. and parts of Ontario. Statutes, regulations and policies prevent their entry into British Columbia. However, competition from such facilities will force Provincial health care services to be competitive if they are to be successful in exporting services into rapidly expanding international markets.

Public Administration

Employment in the Provincial public service has fallen significantly from 34,000 in 1982 to 31,000 in 1986. Federal employment has remained stable at 27,000 during that period, while municipal employment has also remained virtually the same at 24,000, up slightly from 23,000 in 1982. Total employment in public administration accounts for 7.1 percent of the provincial work force, still significantly below the Canadian average of 7.6 percent.

Indicative of an increase in productivity in public administration is the steady increase in terms of the share of GDP, up from 6.8 percent in 1980 to 7.8 percent in 1984. That is, although the number of jobs has remained stable for 5 years, the actual output/GDP ratio, or productivity, has grown faster than average since 1980. Investment expenditures by all 3 levels of government have also risen steadily in the last 5 years, probably due to the recent capital intensive government projects undertaken to upgrade the transportation and communication infrastructure in the Province.

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TABLE 1

BRITISH COLUMBIA GROSS DOMESTIC PRODUCT AT MARKET PRICES

Year	Current Dollars		Constant 1981 Dollars	
	(millions)	Percent Change	(millions)	Percent Change
1977	25,269	11.6	35,690	4.0
1978	28,250	11.8	37,325	4.6
1979	32,919	16.5	38,913	4.3
1980	37,496	13.9	40,862	5.0
1981	43,195	15.2	43,195	5.7
1982	44,459	2.9	41,116	-4.8
1983	47,238	6.3	41,189	0.2
1984	49,974	5.8	42,121	2.3
1985	53,122	6.3	43,595	3.5
1986[1]	56,947	7.2	45,121	3.5

[1]Estimates.
Source: Central Statistics Bureau, 'British Columbia Economic Accounts'.

TABLE 2

LABOUR FORCE, EMPLOYMENT AND UNEMPLOYMENT IN BRITISH COLUMBIA
(thousands)

Year	Labour Force			Employed	Unemployed	Unemployment Rate (%)
	Total	Male	Female			
1977	1,148	713	435	1,050	98	8.5
1978	1,202	731	471	1,103	99	8.3
1979	1,239	751	488	1,144	95	7.6
1980	1,301	785	516	1,213	88	6.8
1981	1,361	806	555	1,270	91	6.7
1982	1,370	803	567	1,204	166	12.1
1983	1,389	812	577	1,197	192	13.8
1984	1,410	818	592	1,202	208	14.7
1985	1,431	824	608	1,228	203	14.2
1986	1,457	835	622	1,274	183	12.6

Source: Statistics Canada, 71-529.

TABLE 3

EMPLOYMENT IN SELECTED INDUSTRIES IN BRITISH COLUMBIA
(thousands of employees)

Year	Forestry	Mining	Manufacturing	Construction	Trade	Services	Public Administration
1977	25	13	170	80	194	300	74
1978	30	12	176	75	215	318	78
1979	31	20	179	76	210	341	76
1980	29	25	179	80	227	372	82
1981	29	28	184	93	231	391	82
1982	22	20	159	77	220	384	84
1983	30	16	151	70	211	400	81
1984	27	18	148	70	222	406	81
1985	28	20	151	69	224	425	79
1986	24	19	151	69	240	450	83

Source: Statistics Canada, 71-001.

TABLE 4

WAGES AND SALARIES IN SELECTED INDUSTRIES IN BRITISH COLUMBIA
(millions of dollars)

Year	Forestry[1]	Manufacturing	Construction	Transport Communication and Utilities	Trade	Services	Public Administration	Total Wages and Salaries
1977	490	2,489	1,208	1,732	2,039	3,277	1,006	13,512
1978	579	2,794	1,117	1,871	2,154	3,595	1,106	14,618
1979	686	3,189	1,200	2,113	2,424	4,029	1,211	16,547
1980	744	3,662	1,655	2,335	3,018	4,789	1,357	19,557
1981	700	4,031	2,153	2,733	3,628	5,749	1,511	22,748
1982	635	3,891	1,814	2,991	3,499	6,354	1,796	23,395
1983	766	3,987	1,593	3,023	3,613	6,572	1,809	23,786
1984	783	4,120	1,299	3,110	3,813	6,818	1,877	24,375
1985	772	4,488	1,335	3,294	4,072	7,172	1,953	25,890
1986[2]	648	4,519	1,282	3,349	4,258	7,423	2,031	26,392

[1]Includes logging and forestry services, but excludes forestry-based manufacturing which is included under Manufacturing.

[2]Preliminary estimates.

Source: Statistics Canada, 72-005.

TABLE 5

AVERAGE WEEKLY EARNINGS IN SELECTED INDUSTRIES IN BRITISH COLUMBIA
(dollars)

Year	Forestry[1]	Mining	Manufacturing	Construction	Trade	Services	Industrial Aggregate
1977	307.12	348.33	294.94	325.39	209.54	222.17	253.23
1978	335.28	371.40	318.38	365.21	214.15	230.86	268.50
1979	365.53	413.23	346.38	395.31	232.63	247.08	291.56
1980	420.80	469.19	386.10	419.08	258.81	274.71	323.97
1981	473.01	547.22	429.80	479.10	287.04	308.46	362.77
1982	517.44	597.03	478.83	506.56	311.03	340.38	396.99
1983	587.15	644.86	522.52	564.50	322.10	343.67	423.35
1984	646.60	704.20	539.02	535.53	332.71	345.83	429.41
1985	635.35	733.45	558.77	540.27	338.62	354.57	441.33
1986	636.36	758.39	568.97	508.42	340.48	354.19	443.86

[1]Includes logging and forestry services, but excludes forestry-based manufacturing which is included under Manufacturing.

Source: Statistics Canada, 72-002.

TABLE 6

VALUE OF EXPORTS THROUGH BRITISH COLUMBIA CUSTOMS PORTS[1]
(millions of dollars)

Year	United States	Japan	United Kingdom	Other Countries	Total
1977	3,556	2,127	351	2,257	8,291
1978	4,278	2,504	340	2,643	9,765
1979	5,280	3,394	475	3,574	12,722
1980	5,752	3,618	551	5,045	14,966
1981	6,123	3,791	488	5,557	15,959
1982	6,306	3,739	428	5,223	15,696
1983	6,249	3,903	398	5,142	15,691
1984	6,881	4,730	448	6,194	18,253
1985	7,852	4,794	376	6,062	19,084
1986	6,626	4,667	484	6,154	17,931

[1]Includes all products exported irrespective of province of origin.

Source: Central Statistics Bureau, from unpublished Statistics Canada data.

TABLE 7

VALUE OF IMPORTS THROUGH BRITISH COLUMBIA CUSTOMS PORTS[1]
(millions of dollars)

Year	United States	Japan	United Kingdom	Other Countries	Total
1977	1,761	888	87	792	3,527
1978	2,188	1,229	106	968	4,492
1979	3,070	1,071	126	1,276	5,543
1980	3,220	1,616	121	1,344	6,300
1981	3,770	2,440	125	1,619	7,954
1982	2,797	1,996	82	1,381	6,256
1983	2,772	2,168	76	1,433	6,450
1984	3,232	2,671	95	1,829	7,827
1985	3,620	3,158	128	2,386	9,292
1986	4,126	4,075	111	2,708	11,020

[1]Includes all products imported irrespective of province of destination.

Source: Central Statistics Bureau, from unpublished Statistics Canada data.

TABLE 8

ESTIMATED VALUE OF EXPORTS OF BRITISH COLUMBIA PRODUCTS THROUGH ALL CANADIAN CUSTOMS PORTS[1]
(millions of dollars)

Year	United States	Japan	United Kingdom	Other[2] E.E.C.	Other Countries	Total
1977	3,424	1,225	360	648	651	6,308
1978	4,202	1,559	352	712	733	7,558
1979	4,914	2,044	499	1,055	1,001	9,513
1980	4,153	2,182	626	1,348	1,345	9,654
1981	4,055	2,112	554	1,155	1,277	9,153
1982	3,992	2,132	446	976	1,331	8,877
1983	4,961	2,214	451	870	1,429	9,925
1984	5,484	2,915	463	977	1,820	11,659
1985	6,249	2,962	406	867	1,831	12,315
1986	6,109	3,266	518	1,067	1,755	12,715

[1]Estimates based on Statistics Canada province of lading statistics and other adjusted data.

[2]European Economic Community (European Common Market) includes United Kingdom, Ireland, Denmark, Belgium, Luxembourg, France, Federal Republic of Germany, Italy and Netherlands. Greece has been included since 1981. Spain and Portugal were added in 1986.

Source: Ministry of Economic Development.

TABLE 9

CONSUMER PRICE INDEX, VANCOUVER
(1981 = 100)

Year	Food	Housing	Clothing	Transportation	Health and Personal Care	All Items	Percent Change
1977	64.7	73.3	72.4	64.0	70.5	68.9	7.2
1978	73.0	78.0	76.0	67.3	74.5	74.3	7.8
1979	81.6	81.6	82.3	73.4	81.0	80.0	7.7
1980	90.1	86.7	92.4	82.2	89.7	87.5	9.4
1981	100.0	100.0	100.0	100.0	100.0	100.0	14.3
1982	108.2	111.7	107.5	112.2	110.8	110.5	10.5
1983	112.8	117.5	111.9	118.7	118.2	116.6	5.5
1984	118.5	120.6	114.8	124.8	122.5	121.3	4.0
1985	120.9	122.3	117.6	131.9	125.2	125.2	3.2
1986	126.4	124.6	119.9	134.1	128.8	129.3	3.3

Source: Statistics Canada, 62-010.

TABLE 10

SELECTED PRICE INDEXES IN BRITISH COLUMBIA
(1981 = 100)

Year	Hemlock Lumber—BC	Spruce Lumber—BC	Plywood, Softwood	Newsprint for Export	Woodpulp, Sulphite Bleached, for Export	Non-Residential Electric Power—BC
1981	100.0	100.0	100.0	100.0	100.0	100.0
1982	99.0	93.6	88.3	104.7	92.4	118.3
1983	115.1	123.1	107.5	98.7	79.7	126.7
1984	105.2	108.2	95.4	109.6	97.1	137.8
1985	116.7	110.1	103.1	119.7	83.7	141.6
1986	129.2	130.7	128.7	123.0	95.6	144.3

Source: Statistics Canada, 62-011.

TABLE 11

LOG PRODUCTION IN BRITISH COLUMBIA
(millions of cubic metres)

Year	Coast	Interior	Province
1977	28.6	41.4	70.0
1978	32.3	42.8	75.2
1979	30.6	45.6	76.2
1980	30.7	43.9	74.7
1981	22.5	37.0	59.5
1982	21.4	34.9	56.2
1983	26.8	44.6	71.4
1984	27.0	47.3	74.3
1985	27.5	49.1	76.6
1986	26.4	50.8	77.2

Source: Ministry of Forests, as indicated by timber scaled.

TABLE 12

LUMBER AND PLYWOOD PRODUCTION IN BRITISH COLUMBIA
(thousands of cubic metres)

	LUMBER			PLYWOOD
Year	Coast	Interior	Province	Softwood
1977	10,614	17,764	28,378	2,074
1978	11,316	18,254	29,570	2,221
1979	10,989	19,369	30,357	2,056
1980	10,022	18,186	28,207	1,916
1981	8,145	16,402	24,547	1,702
1982	7,084	16,383	23,467	1,430
1983	9,768	21,009	30,777	1,763
1984	9,210	21,651	30,861	1,552
1985	9,429	23,615	33,044	1,641
1986	8,856	22,611	31,467	1,534

Source: Statistics Canada, 35-001, 35-003 and 35-204.

TABLE 13

PULP AND PAPER PRODUCTION IN BRITISH COLUMBIA
(thousands of metric tonnes)

Year	Wood Pulp[1]	Paper[2]
1977	4,831	1,952
1978	5,426	2,137
1979	5,523	2,154
1980	5,783	2,147
1981	4,995	1,926
1982	4,938	1,858
1983	5,760	2,158
1984	5,370	2,085
1985	6,050	2,500
1986	6,360	2,601

[1]Includes pulp for use in B.C. paper production as well as pulp for export.

[2]Includes newsprint, other paper and paperboard.

Source: Wood Pulp: Statistics Canada, 36-204 for 1976-1984;
Paper: Statistics Canada, 36-204 for 1976-1982;
Other years: Canadian Pulp and Paper Association estimates adjusted for comparability with Statistics Canada data.

TABLE 14

VALUE OF METAL PRODUCTION IN BRITISH COLUMBIA
(millions of dollars)

Year	Copper	Silver	Gold	Zinc	Molybdenum	Lead	Other	Total
1977	385	38	32	61	142	42	14	714
1978	432	45	48	52	168	52	23	820
1979	656	95	104	62	321	88	25	1,351
1980	671	157	170	49	289	66	27	1,429
1981	611	152	136	67	198	62	21	1,247
1982	495	158	118	64	155	43	24	1,057
1983	560	180	131	80	88	49	18	1,104
1984	518	121	118	115	114	38	13	1,037
1985	580	93	94	113	72	42	13	1,007
1986[1]	620	100	155	134	74	37	11	1,131

[1]Estimates.

Source: Ministry of Energy, Mines and Petroleum Resources.

TABLE 15

VALUE OF MINERAL PRODUCTION IN BRITISH COLUMBIA
(millions of dollars)

Year	Metals	Coal	Natural Gas to Pipeline	Crude Oil	Industrial Minerals	Other	Total
1977	714	329	397	133	79	136	1,788
1978	820	382	401	145	59	165	1,972
1979	1,351	439	700	169	84	206	2,949
1980	1,429	461	613	190	116	268	3,077
1981	1,247	554	617	236	122	233	3,009
1982	1,057	567	543	334	96	200	2,797
1983	1,104	556	455	402	89	251	2,857
1984	1,037	1,008	519	435	115	241	3,355
1985	1,007	1,028	575	428	111	279	3,428
1986[1]	1,131	1,000	464	230	133	279	3,237

[1]Estimates.

Source: Ministry of Energy, Mines and Petroleum Resources.

TABLE 16

DISTRIBUTION OF BRITISH COLUMBIA NATURAL GAS
(millions of cubic metres)

Year	Deliveries to B.C. Distributors	Deliveries to Export[1]	Total Deliveries[1]
1977	3,957	6,503	10,459
1978	4,044	5,882	9,926
1979	4,361	6,714	11,075
1980	4,519	4,376	8,895
1981	4,328	3,805	8,133
1982	4,695	2,320	7,015
1983	4,609	2,147	6,756
1984	4,972	2,277	7,249
1985	5,269	2,537	7,806
1986[2]	5,089	2,742	7,831

[1]Includes gas originating in NWT for the years 1974 to 1981 inclusive.

[2]Preliminary estimates.

Source: Ministry of Energy, Mines and Petroleum Resources.

TABLE 17

CRUDE OIL PRODUCTION IN BRITISH COLUMBIA
(thousands of cubic metres)

Year	Crude Oil	Condensates	Total Production
1977	2,199	205	2,404
1978	2,004	181	2,185
1979	2,140	217	2,357
1980	2,003	170	2,173
1981	2,036	153	2,189
1982	2,078	156	2,234
1983	2,079	132	2,210
1984	2,094	146	2,240
1985	1,958	137	2,095
1986[1]	2,339	66	2,405

[1]Preliminary estimates.

Source: Ministry of Energy, Mines and Petroleum Resources.

TABLE 18

SALES OF MOTOR GASOLINE IN BRITISH COLUMBIA
(millions of litres)

Year	Premium	Regular		Total Sales
		Leaded	Unleaded	
1977				3,800
1978				4,037
1979				4,205
1980				4,409
1981	299	3,079	1,003	4,381
1982	322	2,775	938	4,035
1983	300	2,584	915	3,799
1984	295	2,469	965	3,728
1985	312	2,261	1,026	3,599
1986	371	2,053	1,179	3,603

Source: Statistics Canada, 45-004.

TABLE 19

SUPPLY AND DISPOSAL OF ELECTRICAL ENERGY IN BRITISH COLUMBIA
(gigawatt hours[1])

Year	SUPPLY					DISPOSAL	
	Net Generation			Receipts From Other Provinces and Imports	Total B.C. Supply	Delivered To Other Provinces and Exports	Total B.C. Demand
	Hydro	Thermal	Total				
1977	41,241	1,945	43,185	1,007	44,192	5,749	38,444
1978	40,612	1,825	42,437	1,521	43,958	3,934	40,024
1979	40,958	2,286	43,244	1,737	44,981	3,656	41,325
1980	40,860	2,474	43,334	2,823	46,157	3,454	42,702
1981	49,408	1,600	51,008	1,158	52,166	8,987	43,180
1982	46,127	2,111	48,238	2,308	50,545	6,615	43,931
1983	44,911	2,302	47,213	2,445	49,658	4,975	44,683
1984	50,243	2,126	52,369	1,556	53,925	8,313	45,612
1985	57,105	2,021	59,126	1,080	60,206	11,231	48,975
1986	48,923	1,850	50,773	3,345	54,118	4,709	49,408

[1]Gigawatt hour = 1 million kilowatt hours.

Source: Statistics Canada, 57-001 and 57-002.

TABLE 20

WHOLESALE AND LANDED VALUE OF FISH PRODUCTS IN BRITISH COLUMBIA
(millions of dollars)

Year	WHOLESALE MARKETED VALUE					Landed Value[1]
	Salmon	Halibut	Herring	Other	Total	
1977	228	10	90	32	360	165
1978	304	13	155	39	511	244
1979	290	18	202	54	563	330
1980	289	10	48	55	402	181
1981	374	11	82	57	524	232
1982	315	5	86	55	461	236
1983	284	9	111	61	465	203
1984	276	12	99	73	460	236
1985	512	16	103	89	720	372
1986[2]	500	18	70	102	690	380

[1]Excludes halibut and tuna landings by B.C. fishermen at United States ports and hake sold to foreign processors.

[2]Preliminary estimate.

Source: Ministry of Agriculture & Fisheries.

TABLE 21

FARM CASH RECEIPTS IN BRITISH COLUMBIA
(millions of dollars)

Year	CROPS		LIVESTOCK PRODUCTS				
	Fruits and Vegetables Including Potatoes	Grain and Other Crops	Dairy Products	Poultry and Eggs	Other Livestock and Products	Other	TOTAL FARM CASH RECEIPTS
1977	101	74	116	85	83	51	510
1978	129	81	125	95	120	30	580
1979	140	99	146	116	154	15	670
1980	147	125	174	120	175	29	770
1981	168	157	196	143	180	48	892
1982	189	126	217	136	207	69	944
1983	180	129	217	137	194	47	904
1984	182	145	228	151	219	52	977
1985	196	154	235	151	219	55	1,010
1986	195	142	230	162	237	51	1,017

Source: Statistics Canada, 21-001 and 21-202.

TABLE 22

PRINCIPAL STATISTICS OF MANUFACTURING INDUSTRIES IN BRITISH COLUMBIA

Year	MANUFACTURING ACTIVITY				TOTAL ACTIVITY	
	Establishments	Materials and Supplies Used	Value Added	Value of Shipments	Salaries and Wages	Total Employees
	(number)	(millions of dollars)				(thousands)
1975	3,131	3,884	3,285	7,326	1,804	137
1976	3,025	4,773	4,007	8,857	2,173	141
1977	2,899	5,357	4,499	10,058	2,407	142
1978	3,478	6,539	5,432	12,223	2,776	154
1979	3,822	8,137	6,331	14,628	3,163	159
1980	3,875	9,032	6,567	15,893	3,556	160
1981	3,874	9,827	6,638	16,793	3,881	159
1982[1]	3,676	9,053	5,896	15,646	3,793	140
1983	3,820	9,554	6,735	16,998	3,894	133
1984	3,980	10,169	7,161	17,979	3,945	132

[1]Numbers from 1982 are based on 1980 SIC definitions and are not comparable to previous years.

Source: Statistics Canada, 31-203.

TABLE 23

MANUFACTURING SHIPMENTS FOR SELECTED INDUSTRY GROUPS IN BRITISH COLUMBIA
(millions of dollars)

Year	Wood	Paper and Allied	Food[1]	Petroleum and Coal Products	Primary Metals	Metal Fabricating	Total All Industries
1977	3,261	1,790	1,520	749	530	443	10,060
1978	4,142	2,061	1,784	878	624	560	12,235
1979	4,841	2,537	2,064	1,069	703	683	14,631
1980	4,522	3,084	2,172	1,312	913	837	15,896
1981	4,139	2,865	2,133	1,858	886	938	16,782
1982	3,510	2,652	2,070	2,248	795	796	15,647
1983	4,642	2,852	2,121	2,339	704	789	16,985
1984	4,529	3,137	2,243	2,201	840	795	17,695
1985	5,117	3,411	2,330	2,415	806	808	19,062
1986	5,373	3,951	2,761	2,180	792	934	20,560

[1]Data prior to 1981 include Beverages.

Source: Statistics Canada, 31-001.

TABLE 24

CAPITAL AND REPAIR EXPENDITURES IN BRITISH COLUMBIA
(millions of dollars)

Year	Construction	Machinery and Equipment	Total
1977	4,492.7	2,930.0	7,422.7
1978	4,933.0	3,325.4	8,258.4
1979	5,634.1	4,036.0	9,670.1
1980	7,239.9	4,942.5	12,182.4
1981	9,084.4	5,796.9	14,881.3
1982	7,673.4	5,373.5	13,046.9
1983	8,038.5	4,526.5	12,565.0
1984	7,275.3	4,913.3	12,188.6
1985	8,370.6	5,189.0	13,559.6
1986[1]	7,701.4	5,047.0	12,748.4

[1]Preliminary estimates.

Source: Statistics Canada, 61-205 and 61-206.

TABLE 25

CAPITAL AND REPAIR EXPENDITURES IN BRITISH COLUMBIA BY SECTOR
(millions of dollars)

Year	Primary Industries and Construction	Manufacturing	Utilities	Trade, Finance and Commercial	Institutions and Government	Housing	Total
1977	1,190.1	1,023.4	1,623.1	739.4	1,132.9	1,713.8	7,422.7
1978	1,375.8	1,145.8	1,869.7	928.8	1,158.8	1,779.5	8,258.4
1979	1,860.9	1,430.3	2,155.1	1,180.6	1,174.1	1,869.1	9,670.1
1980	2,639.0	1,977.4	2,293.9	1,387.2	1,413.3	2,471.6	12,182.4
1981	2,622.3	2,501.5	2,916.2	1,743.5	1,632.6	3,465.2	14,881.3
1982	2,363.4	1,736.5	3,564.1	1,389.3	1,575.1	2,418.5	13,046.9
1983	2,400.5	1,172.5	3,330.0	1,457.9	1,744.8	2,459.3	12,565.1
1984	2,116.8	1,382.8	2,882.8	1,951.7	1,729.1	2,125.4	12,188.6
1985	2,032.0	1,483.2	2,544.6	2,533.7	2,151.8	2,823.3	13,559.6
1986	1,737.0	1,497.7	2,268.8	2,252.6	1,981.5	3,010.8	12,748.4

Source: Statistics Canada, 61-205 and 61-206.

TABLE 26

DWELLING STARTS BY TYPE IN BRITISH COLUMBIA
(number of dwellings)

Year	Single Detached	Two-Family	Row	Apartment and Other	Total
1977	15,501	1,535	3,124	12,198	32,358
1978	18,195	1,374	2,687	6,362	28,618
1979	17,792	780	1,993	6,780	27,345
1980	22,600	989	2,243	11,714	37,546
1981	19,193	1,245	4,741	16,406	41,585
1982	7,350	611	2,978	8,868	19,807
1983	15,137	445	1,966	5,059	22,607
1984	9,164	337	1,601	5,067	16,169
1985	11,343	372	2,035	4,219	17,969
1986	12,996	565	2,289	4,867	20,687

Source: Statistics Canada, 64-002.

TABLE 27

VALUE OF BUILDING PERMITS ISSUED IN BRITISH COLUMBIA
(millions of dollars)

Year	Residential	Non-Residential	Total
1977	1,050	701	1,751
1978	958	698	1,655
1979	1,207	928	2,134
1980	1,744	1,207	2,951
1981	2,221	1,335	3,556
1982	1,135	1,026	2,161
1983	1,463	775	2,238
1984	1,177	827	2,004
1985	1,378	811	2,189
1986[1]	1,508	912	2,420

[1]Preliminary estimates.

Source: Statistics Canada, 64-001 and 64-203.

TABLE 28

INTERNATIONAL AND DOMESTIC SHIPPING IN BRITISH COLUMBIA
(thousands of metric tonnes)

	INTERNATIONAL		DOMESTIC	
Year	Loaded	Unloaded	Loaded	Unloaded
1976	33,376	4,240	11,098	11,004
1977	36,720	4,322	12,007	11,855
1978	39,884	4,693	16,384	16,084
1979[1]	48,147	6,123	31,049	30,925
1980	52,181	5,374	33,838	33,390
1981	53,419	5,997	26,055	25,950
1982	51,077	3,994	23,421	23,374
1983	57,095	4,175	22,568	22,568
1984	68,253	5,121	19,753	19,727
1985	67,921	5,808	21,153	21,121

[1]Data for the years 1979 on are not comparable with previous years due to revised methodology.

Source: Statistics Canada, 54-209 and 54-211.

TABLE 29

UNITED STATES AUTOMOBILES ENTERING BRITISH COLUMBIA
(thousands)

Year	Enter and Depart on Same Day	Stay One or More Nights	Total
1977	549	472	1,021
1978	565	497	1,062
1979	613	460	1,073
1980	766	460	1,226
1981	717	460	1,177
1982	646	440	1,085
1983	689	490	1,179
1984	673	504	1,177
1985	726	534	1,260
1986	1,057	968	2,025

Source: Statistics Canada, 66-001.

TABLE 30

RETAIL SALES IN BRITISH COLUMBIA
(millions of dollars)

Year	Chain Stores	Independent Stores	All Stores
1977	3,230	4,054	7,284
1978	3,622	4,605	8,227
1979	4,138	5,057	9,195
1980	4,571	6,001	10,572
1981	5,216	6,784	12,000
1982	5,405	6,362	11,766
1983	5,712	6,545	12,257
1984	6,207	6,797	13,005
1985	6,756	7,548	14,304
1986	7,230	8,093	15,323

Source: Statistics Canada, 63-005.

TABLE 31

PERSONAL INCOME IN BRITISH COLUMBIA

Year	Total Personal Income (millions of dollars)	Personal Income Per Person (dollars)
1975	15,787	6,489
1976	18,098	7,336
1977	20,280	8,112
1978	22,806	8,972
1979	25,974	10,032
1980	30,253	11,348
1981	35,443	12,917
1982	38,591	13,827
1983	40,523	14,365
1984	42,338	14,778

Source: Statistics Canada, 13-201.

TABLE 32

POPULATION OF BRITISH COLUMBIA
(thousands)

Year	Population[1]	Percent Change
1977	2,499.4	1.3
1978	2,542.3	1.7
1979	2,589.4	1.9
1980	2,666.0	3.0
1981[2]	2,744.2	2.9
1982	2,791.1	1.7
1983	2,820.6	1.1
1984	2,857.9	1.3
1985	2,884.7	0.9
1986	2,905.9	0.7

[1]As of June 1st.

[2]Census year.

Source: Statistics Canada, 91-201.